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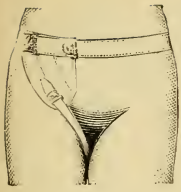

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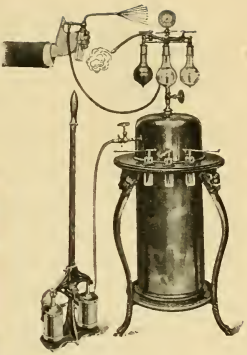

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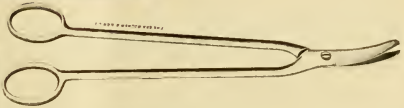

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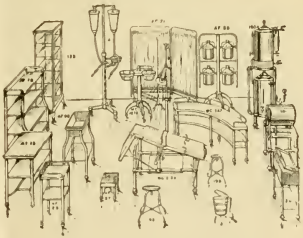

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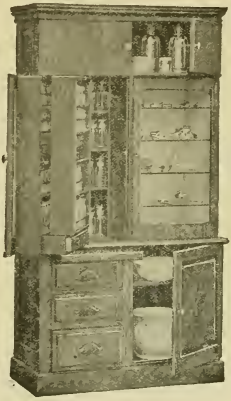

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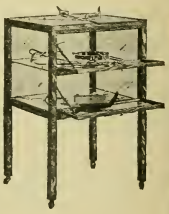

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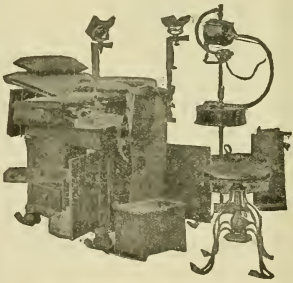

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The Charlotte Medical Journal

VOL. LX CHARLOTTE, N. C., JULY, 1909. No. 1

Report of Two Cases of Haemophilia.*

By Parks M. King, Member Visiting Staff Presbyterian and St. Peters Hospital, Charlotte, N. C.

Haemophilia is defined as a congenital and hereditary affection, characterized by deficient coagulability of the blood and a consequent tendency to various profuse hemorrhages, which are difficult to arrest. Its real cause is unknown and the few pathological changes described in the blood and blood vessels are insufficient factors.

Two widely accredited theories are:

(a) That it concerns the coagulability of the blood, and (b) That it lies in the tissues of the vessels.

Weil believes that in hereditary Haemophilia there exist incoagable substances in the blood, which may have the origin in various organs, one of which is the liver.

Sahli believes that the coagulation of the blood is at fault, but the chief cause of it lies in the vessel structures themselves.

Haemophilia is the most hereditary of all hereditary diseases. As a rule the males of the "Bleeder families" are the bleeders, and the "females" transmit the disease to their male offspring, without manifesting the disease themselves, although a few cases of "Female Bleeders" have been reported, 48 out of 700 cases.

The hemorrhages usually develop within the first two years of life. Hemorrhage of the cord being a not infrequent cause of death. The hemorrhages may be either spontaneous or traumatic. Epistaxis is the most common of the spontaneous hemorrhoges, with hemorrhage from the gums, the intestines, lungs, kidneys and stomach next in frequency. In the traumatic hemorrhages they seem to bleed less from a large than a small wound. Hemorrhage into the joints is quite frequent and troublesome. In some acute stages it resembles tubercular arthritis, and in the chronic stages, the deformity and ankylosis rather resemble arthritis deformans.

As might be imagined the tretament is highly unsatisfactory and the list of drugs used, large. The prognosis is grave. Sixty per cent of the cases die before the eighth year. Styptics are useless. Adrenalin chloride is apparently so. Calcium-chloride or calcium lactate in doses of 3-10 grains, tid, apparently hastens the coagulation of the blood, which is very markedly delayed, in most cases sometimes as much as thirty to forty-five minutes. The same may be said of gelletin, which is given by mouth or subcutaneously. Lately thyroid extract, which is supposed to supply some vital substance to the tissues which is lacking, either totally or in part, has been used with good results.

Weil reports good results from Blood Serum, using either human serum or the serum of a horse, the dose being 10 to 20 cc.

In July, 1906, I was called to see Sam Millwee, male, white, age 25, who gave the following family history. This history has been verified to a large extent by Drs. I. M. Herron and Jno. Knox, of Mecklenburg County, who have practiced among the families for a number of years.

On his father's side, his family history as to "bleeders" is negative.

His great-grandfather on his mother's side was married twice. He had by his first wife four children with no history of hemorrhage.

By his second wife, who was a Miss Black of Fishing Creek, S. C., three children were born. The first, Thomas Neely, did not bleed. Hanna Neely, the second child, married and had one child who was killed in the Army. Apparently he was not a bleeder.

Jane, the third child, became the second wife of Samuel Knox, the maternal grandfather of Sam'l Millwee.

Samuel Knox was married twice. By his first wife he had four children with no history of hemorrhage. By his second wife, who was Jane Neely, just mentioned, he had twelve children, six boys and six girls. Leroy at the age of 12 was kicked on the leg by a horse and bleed to death from a small lacerated wound.

Henry, who was two years old, bit his tongue, and bled to death.

Albert, at the age of three stuck a cane in his mouth and bleed to death.

Joseph, who was also a bleeder, is supposed to have bled to death in the Civil War.

Thomas is alive and well at the age of 73, and has never bled. He had two boys who were not bleeders, both of whom died in childhood.

None of the girls ever bled. Three of them married.

Mrs. Nancy Currothers had two children, a boy and a girl. The girl was born blind, and is alive at the age of 50. She did not marry. The boy died at the age of two from a cut on his cheek.

Mrs. Jane Wyatt had eleven children

*Read at meeting of Tri-State Medical Society in Charleston, S. C., Feb. 16 and 17, 1909.

Photograph of Sam'l Millwee, showing atrophy and deformity of left leg and foot.

six boys and five girls.

Walter died at the age of four from diphtheria, but was a "bleeder."

Will died at the age of 20 from a cut on his finger.

John died at the age of 28. He had been a great sufferer from rheumatism. His knee became stiff and flexed so that he had to use crutches. During one of his attacks of pain with his knee became so swollen that the skin ruptured and he bled to death.

Sam, a chronic sufferer from arthritis, died at the age of 20 from hemorrage with typhoid fever.

Of the five girls, two are dead, one has never married. Carrie Linebarger has recently married and has no children. Ellie Rhyne has one male child one year old who is not a bleeder as yet.

Mrs. Margaret Millwee, third daughter of Sam Knox, had three boys and three girls. One boy died at the age of four days from hemorrhage of the cord. One boy died at the age of fourteen months, he fell from the cradle and cut his upper lip and bled to death. The third son is the patient under discussion. Of her three daughters, two have married.

Mrs. Mary Purnell had eight children, seven boys and one girl. The girl died while an infant of gastro-enteritis. Three of her boys are dead. One died at the age of one day with atelectasis. One at fifteen months of enteritis, but was a bleeder. John cut his finger when three years old and bled to death. She has four boys living, three of them, Sam fifteen, Charles thirteen and the baby Albert, four years old, are bleeders, having eptistaxis and pains in their joints. Knox, nine years old, has not bled.

Mrs. Millwee's other married daughter,

Photograph of Mrs. Mary Purnell's children. Knox, who is standing, is not a bleeder. The others show the characteristic ecchymotic spots and enlarged joints. Sam is on the left. He had a nose bleed while his photograph was being taken, and had just recovered from a severe attack of hematuria.

Mrs. Julia Needle, has nine children, six girls and three boys. One boy was born prematurely and died at birth. John is fourteen years old and does not bleed. William is four years old and bruises, but has never had hemorrhage or rheumatic pains.

Sam Millwee, the patient, began to bleed at the nose at the age of two years, and has had a number of attacks of epistaxis. About the same time he began to suffer with pains in his joints, especially his knees, which became swollen and black. The swelling and discoloration would gradually subside, but his left knee is partially ankylosed. At the age of eight years he bled two weeks from a small punctured wound of the knee. Four years ago the calf of the left leg became black and blue. Following this he had atrophy of the calf muscles. When twenty-one years old he cut his left foot and had a very severe hemorrhage, his life being despaired of. His left ankle has been ankylosed in an equine position since that time.

I first met him about January 1, 1906. He is about six feet tall, weighed about 135 lbs. and was very aenemic. Several days before I was called to see him in July 1906, he began to have large painless movements of the bowels of dark liquid blood. He was removed to the Presbyterian Hospital in this City where he continued to have hemorrhages at irregular intervals. The treatment consisted of morphine and atropine, to keep the patient quiet—calcium chloride,

grains 10, tid, strychnine, adrenalin chloride grains 10, hypodermatically, tid. The hemorrhages continued to an alarming extent until the patient was barely alive. They gradually stopped and the patient recuperated quite rapidly, and was able to be taken home during the fourth week. He has had no return of the bleeding since then, but was bedridden for a good part of the first year on account of the rheumatic pains. During the latter part of 1906 he began taking thyroid extract, and has taken it at irregular intervals ever since. Apparently he has improved a good deal under this treatment. and has had less rheumatism, (than for some years.)

Case II.—During September 1908, Dr. J. W. Flow of Kanapolis, N. C., referred William Wallace, male, white, five years old, to me at the Presbyterian Hospital, for protracted hemorrhage from his tongue.

FAMILY HISTORY.

On his father's side, negative as to haemophilia. His mother was Miss Flora Giles of Rockingham, N. C. She has three brothers who are "bleeders." None of her brothers have died. William is the youngest of three children, the older being two girls. One of the girls died of pneumonia at the of two years.

William began to bleed when three years old from slight cuts, and has had four attacks of hemorrhage since then. The hemorrhages lasting from ten days to two weeks. Ten days before admission to the hospital he fell and cut his tongue slightly. He had been bleeding very freely and almost continuously up to the time of admission. He was placed on thyroid extract and calcium lactate, and continued to bleed freely for three or four days. Suddenly his tongue healed over and the hemorrhage ceased. The patient was sent home at the end of six days. In this case the coagulation of the blood apparently was not delayed, large clots of coaguluted blood filling his mouth. I have been unable to hear from him since that time, and unable to get fuller history in this case.

REFERENCES:

Anders Practice of Medicine, Vol. 4.
Annals of Surgery, May 1907.
La Tribune Medical, January 1907.
Reitschrift f. klin—Med., 1904, Vol. 56, Nrs. 3 and 4.

Urethral Stricture.*

By W. L. Champion, M. D., Atlanta, Ga.

The impression is too general that the use of sounds or the dilator is the proper conrse to persue in the treatment of all cases of urethral stricture. This short paper is presented to emphasize the necessity of the cutting operation in organic stricture.

The calibre of the urethra may be diminished from spasm, pressure, inflammatory thickening of the urethral walls, or fibrous formations due to inflammation, ulceration or traumatism. Strictures of recent formation or, in other words, chronic inflammatory thickening of the urethral mucous membrane will readily respond to the sound which assists nature in restoring the diseased membrane to its normal, or a healthy condition. But where there is an organic formation that narrows the urethra, my experience has been that it is useless to temporize with the sound. It is unnecessary for me to picture to you who treat urethral diseases the patient who calls every few months with a discharge from his urethra, to treat his old stricture. You examine the urethra and find a stricture two or three inches from the meatus that will only admit an eighteen French sound, and, after a few weeks' treatment, it will admit a twenty-eight, but no larger. It may be a thirty-four French sound, the normal size of the urethra, will pass into the bladder and the patient still have a fibrous band that a twenty-eight or thirty bulbous bougie will pass with difficulty.

A resilient or irritable stricture as described cannot be removed by dilation, and the surgeon who relies upon the introduction of the full size sound as an index to the stricture's being removed will be surprised should he introduce a bulbous bougie and still find a decided narrowing of the urethra.

Nearly all cases of stricture of the urethra are due to gonorrhea, and, as a rule, as long as the stricture remains, the urethra is infected; so it is bad surgery to attempt month after month to remove a urethral stricture by the use of sounds when a urethrotomy will restore permanently the urethra to its normal calibre and get rid of the infection.

We are all aware that patients are averse to the cutting operation and prefer the use of the sound, but when we find a stricture that will not respond to dilation, our advice would be urethrotomy; and my experience has been that we can confidently assure our patients that the cutting operation will make a cure of the stricture, and also remove the cause of his "gleet."

The abnormal narrowing of the urethra by fibrous tissue is a mechanical obstruction to the flow of urine and the normal blood supply to the tissues, which condition necessarily keeps up a chronic state of inflammation and harbors germs; so a chronic urethritis without iuvolment of the pros-

*Read at meeting of the Southern Medical Association, Atlanta, Ga., 1908.

trate gland or seminal vesicles usually means stricture.

As to the various methods of treating urethral stricture by divulsion, electrolysis, dilating and cutting, the only cases in which I have gotten satisfactory results followed the latter operation. After using electrolysis in fifty-two cases, I abandoned the method on account of not getting the results looked for and claimed by others.

To get permanent relief from organic stricture is to completely sever the fibrous bands or tissues with the knife, and, by the use of the sound, make the cut or strictured portion of the canal heal to the size of the normal urethra.

The failures recorded after internal urethrotomy are due to the fact that the strictured tissue is not completely severed, or failure to introduce the sound at proper intervals after the operation. The fact that we frequently find more than one stricture should not be overlooked, and the operator should be careful not to leave a single fibrous band uncut, as the success of the operation may hinge on this point.

As a rule, strictures in the penile urethra are located within the first three inches, but it is frequently the case that constrictions are deeper that require cutting. I do not consider it safe to do an internal urethrotomy without perineal drainage deeper than five inches.

It is a fact that, if a strictured urethra is properly cut, and the after-treatment carried out (which is as important as the cutting) the urethra can be examined years afterwards and found free of contractions.

After internal urethrotomy, the patient should be required to remain in bed three days. The sound can be passed on the third day, and the patient allowed to return to his work on the fourth. With a two per cent solution of cocaine, the operation can be performed with very little pain. Adrenalin used after the operation will, as a rule, control the hemorrhage. It is advisable to pass the sound every four or five days until the hemorrhage ceases, then every ten days for three or four months.

In a brief paper of this character, the various kinds of stricture, their location and symptomatology cannot be considered; but the point I wish to emphasize is that internal urethrotomy is the proper method of curing fibrous stricture of the anterior urethra.

Report of a Case of Pulmonary Edema Complicating Pregnancy.*

By Dr. William L. Kirkpatrick, Pacolet, S. C.

Definition:—In pulmonary edema there is an exudation of serum from the blood in the pulmonary alveoli. In other words, an effusion of some serous fluid into the air-vesticles and interstitial lung-tissue. This condition is scarcely to be regarded as an independent affection, but as a secondary condition, being in many instances associated with pulmonary congestion.

Ethiology:—Pulmonary edema is secondary to acute and chronic affections and pneumonia, but not with any degree of constancy. It is not especially liable to be associated with congestion or with low grades of inflammation of the lungs. The edema may be local, in the immediate neighborhood of a circumscribed, usually inflammatory lesion; or general, arising from causes similar to those which produce congestion, or constituting a terminal event in states of great debility. The factors which appear to be instrumental in causing the transudation are increased tension in the pulmonary vessels, increased fluidity of the blood, an abnormal permeability of the vessel walls due to nutritive changes, and left ventricular weakness.

The diseases with which edema is most commonly associated are pneumonia; the cachexias; grave anemia, nephritis in all its forms; acute specific fevers with much heart weakness; valvular disease; and cerebral apoplexy or injuries.

Pathology:—This consists of a transudation into the alveolar walls, interstitial connective tissues, and air cells, and rarely the process is limited to the interstitial tissue. For the sake of convenience, two forms may be recognized:

(A) *Collateral Edema (Inflammatory Edema):*—This is usually local in character, circumscribing an area of the lung that is effected by pneumonia, abscess, or pulmonary infarction, and is the result of a mild inflammatory process affecting the vessel walls. When the condition follows hypostatic congestion the terms "hypostatic edema" and "splenization" have been applied.

(B) *General Pulmonary Edema:*—If congestion be not associated, the portions of the lungs involved by this type look pale; when pulmonary congestion is present, the lung appears darker than the normal and the exudate is blood-tinged. The lung tissue is heavier than in the healthy state, owing to the more or less airless condition of the alveoli, though it does not

*Read before recent meeting of the Tri State Medical Society, Charleston, S. C.

sink in water. It is boggy to the feel, and pits on pressure.

Edema is usually noticed at the bases of the lungs, though it may become general, and as a rule the surface of the pleura is moist. Hydrothorax may be present.

It is not yet definitely known just how pulmonary edema is produced. On the one hand, increased fluidity of the blood, and on the other an increased tension in the pulmonary vessels, seem to be influential factors in a great many cases. Another factor entering into the production of this condition is in an increased permeability of the vessel walls, due to impairment of their nutrition and "disturbance of the cardio-pulmonic innervation." This usually arises in connection with toxic and infectious diseases, when the blood also exhibits some change, as in the cachexias, general septicaemia, uraemia and the like. There are instances met with in which pulmonary edema, due to vasomotor relaxation, come on quite suddenly.

Symptoms:—Hare, in his volume on practical diagnosis, enumerates the symptoms as follows:

"The physical signs of pulmonary edema may develop suddenly as a result of an injury to the vagus, or in acute disease of the lungs. Generally however, their onset is slow and insidious, but the rapid breathing, crepitant rales, the limitations of these signs to the lower part of the chest, combined with dullness on percussion, the absence of fever, the frothy sputum, and, it may be, the history of renal disease all point to the true state of affairs. A very liquid watery sputum is seen in this condition, particularly when due to Bright's disease or heart failure. Hurried speech is also a very constant sign."

The air-space is lessened in direct proportion to the amount of serum occupying the alveoli; consequently dyspnea is always present and is sometimes a very prominent symptom. Cough is frequent and the expectoration is raised with difficulty. Bronchorrhea is present, and the sputum is abundant and frothy. If congestion be combined with edema, it is blood-stained. The pulse is fast and feeble, and, in extreme cases, cyanosis appears.

Butler, in his work on "Diagnostics of Internal Medicine," says: "The symptoms of pulmonary edema are increasing dyspnoea, cyanosis, cough, and an abundant, frothy, watery, rarely tenacious, expectoration, which may be blood-stained if congestion be also present. The physical signs are impaired resonance or slight dullness over the bases, with absent or weak, perhaps broncho-vesicular, breath sounds. There are abundant large and small rales, of an unusually liquid character, over the involved areas."

Quoting from Anders: "Since the bronchioles contain serum, small rales, having a liquid character, are audible with inspiration over the seat of the edema."

Diagnosis:—Butler says, "This depends mainly upon the presence of numerous unusually moist rales, both large and small, and slight dullness at the bases, particularly if the temperature is around the normal." Caille states that: "The diagnosis depends mainly upon the presence of numerous moist or dry rales and percussion dullness of the base of the lungs, indicative of an effusion of serum into the air cells."

Treatment:—The treatment should be directed to the associated or causative affections. The transudation should be limited as far as possible, and the removal of the effusion from the lungs is of great importance. The position of the patients body must be changed frequently to prevent the gravitation of blood to the dependent portion of the lungs. Some practitioners advise the employment of a large number of dry cups to the thorax. Strychnine and digitalis or strophanthus are indicated to strengthen and stimulate the circulation. For the dyspnea and restlessness some form of opium, preferably morphine and atropine given hypodermically, must be resorted to. In aggravated forms that develop quickly, prompt venesection is imperatively demanded. Lissaman reports a case of acute suffocating pulmonary edema in which he tried amyl nitrite with unsatisfactory results. He then tentatively employed chloroform with the best of success. He holds that this condition is a sort of wet asthma, and relies on chloroform as the remedy in the future.

Case:—Was called Jan. 4, 1909, at 2:00 A. M. and arrived at the house at 4:00 A. M. to see Ella R., colored, age 34, weight 210 pounds. Had had four confinements. First child died at the age of one year and five months of diphtheria. Second child died at nine months and one week of age of "teething." Third child breathed only a few times. Fourth child is living and healthy at two years and nine months of age. This child I delivered with forceps after the mother had been in labor for about 36 hours, and in charge of a midwife. The delivery by forceps was made necessary on account of inertia, there being no other complication present. Upon entering the sick-room, the first thing that attracted my attention was the patient's rapid breathing, and when being interrogated, her hurried answers. When asked what was the trouble she replied that "She had a cold and was in labor." I proceeded to make a

careful examination and found her symptoms as here recorded. Pulse 144, temp. 99.6 F., resp. 40. Patient complaining of uneasiness in chest and severe headache. She was having regular uterine contractions, but said it was not time for her confinement. She was coughing almost constantly and expectorating freely a very liquid, frothy, blood-stained fluid. The cough and inc eased respiration began Dec. 31, 1908—four days previous to my visit, and became so severe that patient felt as if she would choke to death. There were numerous moist rales in the chest, and slight dullness on percussion over the bases with diminished resonance over the apices. There was no edema of either the face or the extremities. Then I made a vaginal examination and found the os dilated sufficiently to readily admit two fingers. A diagnosis of "pulmonary edema complicating pregnancy" was made, and I thought it best to terminate the labor as quickly as possible. This was 4:00 A. M. Deeming it advisable to set up free purgation as well as to hurry the labor, five grains of calomel and two ounces of Epsom salts were administered, and the membranes punctured. There was a large amount of amniotic fluid, and when it drained away I proceeded to give special attention to the presentation; which proved to be transverse, the right elbow over the internal os. With two fingers in the os and indirect or external version, Braxton Hicks' method, was quickly done without an anesthetic. Instead of bringing down a foot, the right knee was drawn into the os and the labor left to nature's efforts mainly, an and was completed at 6:30 A. M.—just two and and one-half hours after the membranes were punctured. After performing the version, I ascertained from patient the date of last menstruation and found that the labor was six weeks or more premature. The child was alive about one hour before delivery, the foetal heart beats numbering 160; but was still-born on account of time required in delivering head. When the labor was completed, two Comp. Cathar. pills and two ounces of salts were given. The respirations now numbered 44, an increase of four after my entering the house; due, I suppose, to the muscular exertion during last hours of travail. Believing my patient to be suffering from albuminuria, she was thoroughly cleansed to avoid getting any blood from the vaginal discharge mixed with the urine, and catheterized with a sterile catheter. Patient being five miles from my office, I gave directions that she have a tablet (containing strych. gr. 1-60) every two hours, a small amount of water when thirsty, and a dose of salts every two hours if bowels did not move freely. They had begun moving however before I left the house, between 7:00 and 8:00 A. M. Upon reaching my office an examination of the urine was made and found to be loaded with albumin. At my second visit the following day patient's mother, who was nursing her, reported to me that there had been more than twenty movements of the bowels. Her pulse was now 128, temp. 99.6, resp. 30. Digitalis was now given with the strychnine to increase the volume of the pulse which at this time was small. Morphine and atropine punctures at visits for restlessness, and Dover's powder in my absence. The bowels were kept open with salts and the position of the patient's body changed frequently. Also, Basham's mixture in tablespoonful doses was given after meals. The diet was restricted to milk and fruits. Jan. 6th, pulse 120, temp. 99.6, resp. 28. Jan. 8th, pulse 104, temp. 99.2, resp. 24. Jan. 24th, pulse 100, temp. norm. resp. 20. At this visit I catheterized patient again and urine was still highly albuminous. Jan. 17th, pulse 84, temp. norm., resp. 20, urine albuminous. The urine was examined at regular intervlas and was albuminous till Jan 27th, when it was found to be normal. The abnormal signs in chest improved in proportion as did the pulse and resp., and patient made a complete recovery.

Personal Experience in Prostatic Surgery.*

By E. C. Bryan, M. D., Richmond, Va., Professor of Descriptive Anatomy and Genitourinary Surgery, University College of Medicine.

When I was asked to read a paper with this title I hesitated to accept, as my experience has been so limited that I deemed it would be of comparatively little value to any member of the Academy.

It is so frequently the case that we members of different medical societies hear papers upon the observations deduced from the consecutive outcome of 500 cases of appendicitis, or 700 or a 1000 cases of hysterectomy or some other operation, that the operator whose opportunities along special lines has not been of such numerical dimensions feels a hesitancy in asking the attention of a medical body to review the outcome of a few cases only; and further feels that he would much rather wait, even if it is a considerable time, until his numbers too become possibly a little more hypertrophied, that the experience gained from

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these more frequent operations of greater clinical value, the observations and conclusions obtained from their outcome of some surgical significance, and that the carefully followed results accurately recorded and fearlessly set forth would then be of not only greater interest, worth and benefit to himself, but, doubtless, also to the medical fraternity. Since, however, the call of the committee has gone forth, the writer presents to your attention to-night, the results in 26 instances of prostatectomy and the personal observations derived from this rather limited series of cases.

Of these 26 cases, 9 were negroes and 17 white. I recall some ten years ago having heard one of the most prominent surgeons of this day, one of those peerless pioneers, say that he did not believe the negro was subject to enlargement of the prostate. The opportunities of the present day for greater clinical work, the development of different and distinct regional specialties, the perfecting of technique and, pari passu, a lessened mortality and, consequently, a greater confidence in surgery on the part of the public, now bring to the knife of the specialist cases which, formerly, would have hardly expected to have gotten the results which the contributing operators of the present day give forth to the many medical journals. But these same pioneers moved without trepidation or hesitancy, their thirsting forces into the unknown depths of the pathological forsets, blazed their way over seemingly unsurmountable public prejudices, threw pontoon bridges of antiseptic dressings over swollen lympathic streams and felled with crude knives gangrenous members which threatened life and limb. But for their heroic leadership and courage, surgery would not have appreciably advanced within the last half century.

In this series of 26 cases there were 3 deaths, or about 11 percent. Cases 3, 7 and 24 died. Case No. 3, colored, perineal, died of pulmonary embolism on the second day after operation, confirmed by autopsy.

Case No. 7, white, suprapubic, died of ileus on the fifth day after operation, which the writer believes to have been due to too generous doses of sparteine sulphate which were falsely given to stimulate congested kidneys; this error has not been performed since.

Case No. 24, white, aged 79, suprapubic cystostomy was performed for enlarged prostate. The prostate was never attacked, simply drainage instituted; but the old man gradually lost ground, and refusing nourishment, died of inanition about ten days after operation.

In looking over the ages, I find they range from 53 to 79. The occupations in 75 percent. were farmers, the remainder constituted by mechanics, laborers, etc. Nor could the writer bring to bear any venereal history which would seem to be of significance or pertinent to hypertrophy of the prostate.

Diagnosis should be easily completed. According to Thompson, 33 percent. of all men over 60 have enlarged prostate, and 16 percent. of this number seek surgical interference. The frequent urination of prostatic enlargement is essantially nocturnal as opposed to the diurnal polykiuria of stricture of the neck of the bladder. This is directly traceable to the actual massage the prostate gets during the day by the encircling fibres of the levator ani, the periprostatic plexus of veins which run in the substance of the sheath having its contents hurried along and emptied in the physiological act of walking by this muscular activity. At rest, during the night, this action ceases; pericongestion means central congestion and the demands for evacuation are consequently greater.

Frequent urination is not the factor which attracts the patient's attention to himself. He thinks this to be one of the concomitant phenomena of advancing years, as much as gray hair and wearing of spectacles, and pays but little attention to it. It is *painful urination* or *hæmaturia;* whether in turn, this be caused by stone-formation, infection, varices or great distension makes no great difference. One of those two factors carries the unfortunate prostatic to surgical help.

The degree of retention, urinary phenomena and physical embarrassment are not dependent upon the size of the prostatic hypertrophy, but upon the angulation of the prostatic urethra or degree of closure of the vesical sphincter. This latter is directly depependent upon pedunculated, intravesical overgrowts. The finger in the rectum may find no enlargement, the catheter reaches the bladder easily, and yet the gateway is obstinately plugged. The writer would call attention to specimen No 1, as an instance of the intravesical prostatic overgrowth which was removed by suprapubic cystostomy.

A tumor grows in the line of least resistance. Prevented anteriorly and inferiorly from spreading out, the prostate grows in the course of its hypertrophy upwards and backwards, the neck of the bladder is raised. This means the formation of a pool below the level of the neck. With replacement fibrosis or eccentric dilatation, this pool is never emptied. The opportunities for infection and stone formation are, therefore, greatly encouraged, and with the development of these complications, the pa-

tient now gets disturbed about himself and comes for examination.

There are many classifications and divisions of the degrees of prostatic hypertrophy. The writer had the opportunity before the Medical Society of Virginia, in 1907, to make the following:

I. Enlarged prostate characterized by moderate frequency of urination.

Examination—Bladder healthy; residual, two ounces or less and clear; organs normal; health good; patient does not know he has it.

II. Enlarged prostate characterized by "catheter life" or overflow.

Examination—Bladder tired out and infected. Residual, large amount and nasty; kidneys and heart compensating; able to attend to work.

III. Enlarged prostate, really Class II plus infection (general and local).

Examination—Kidneys and heart not compensating; urosepsis; delirium.

Those cases in class II constitute the larger percentage of the instances which the surgeon sees. We rarely see those in Class I. for they are like the boy who swallowed the nickel,—they have got it and don't know they've got it.

Class II. is also essentially the class for operation. They cannot be convinced in Class I. that surgical procedures are justifiable; and in Class III. the urosepsis and systemic infection are so profound that operation must be attended with a large mortality.

The writer would call attention to the prostatic pouch as a reservoir for urine, which, at times, is misleading. This pouch is the dilated prostatic urethra bounded anteriorly by the triangular ligament posteriorly by the pedunculated, ball-valve, intravesical growth. The catheter inserted, now draws off two or more drams of urine which has collected there, by trickling around the ball, and retained by the external cut-off muscle deceives the surgeon as to the actual length of the urethra. The ball valve must be passed before the bladder is reached, when a generous gush of urine signalizes the cavity proper. Further, about the diagnosis: There is only one more condition which can be justifiably confounded with prostatic enlarnement—"contracture of the neck of the bladder." This is an actual stenosis by fibrous tissue following a previous gonorrheal invasion. The retention, the overflow, the frequent demands, keenly simulate prostatic obstruction. The younger age of the patient, the previous history, rectal examination and insertion of a goodly sized sound which gains the bladder with difficulty, if at all, settles the question. The writer had recently an illustration of this condition under his observation. Perineal section, stellate rupture of the stenosed ring (which would not admit a No. 12 F.) by means of uterine dilators, dilatation to 45 F. by Kollman's dilator, insertion of a large perineal tube and usual after-treatment were followed by most gratifying and durable results. Large sounds must be passed at regular intervals to maintain this patency.

Just here, the writer would call attention to the following personal observations which are that contracture of the neck of the bladder occurs more frequently than is supposed and that the sound inserted on deep dilatation never gains the bladder cavity and, therefore, does not dilate the internal sphincter; that the stenosis is shoved on ahead of the sound which is not sent home, the operator is deceived, the condition not relieved and the patient ultimately comes to the operating table seeking permanent relief.

Along with this series of cases also, there were three cases of cancer of the prostate which proved inoperable. In the early stages of cancer, the stony hardness, immobility and glandular involvement point to the condition, and, later, these same epiphenomena and particularly the doing-away with the sulcus posteriorly stamps the disease as malignant and beyond surgical relief. The writer would call attention to a case of cancer of the floor of the bladder, A suprapubic cystostomy was performed; a tumor the size of a child's fist was removed, the base seared, and for five weeks, every other day, the x-ray was applied through the bladder wound upon the stump by Piffard's protecting tube. Dr. Gray then considered the patient sufficiently progressed to allow him to leave the hospital. This operation was performed January 5, 1906. The old gentleman gained rapidly in weight and strength, and is today about his parochial vineyard. A letter dated April 9, 1909, says: "My general health is good, but I have been troubled considerably of recent by the urine being thick and bloody."

Again, cystoscopy is scientific, accurate, pretty, interesting. But the writer would forcibly condemn any instrumentation along the urinary channels of the engorged prostate except for positive diagnosis. It is in but few instances that we are unable to make a diagnosis when a rectal examination has been thoroughly carried out, the history carefully gone into and a large-size catheter inserted. Salol and urotropin, five grains each, three times daily, copious water drinking, the bowels well opened with salts, simple diet, the bladder gently and carefully irrigated with warm boric acid solution two or three times daily, a little

strychnine, enforced rest for several days before operation, persuasively prepare the organs, heart, kidneys and bladder for the coming insult of the operaiion.

Since about 1887, when it was first appreciated and anatomically understood that the prostate could be removed, there have been many suggestions, innovations and modifications about the course of and the best method to do away with this overgrowing pathological hypertrophy.

It is with no fear that most surgeons will boldly enter the peritoneal cavity, and unsex a woman by removing her uterus and appendages, or uterus alone, for a poor, little unoffending, subperitoneal or mural fibroid, and yet, when it comes to their own sex with the operation outside the peritoneal cavity, the urinary channels obstinately blocked to the passage of urine, the patient house-ridden and a source of ammoniacal annoyance to himself and friends, the surgeon hesitates, since the operation, though not attended with any unusual risk, "emasculates," does away with procreative powers and, consequently, should be most cautiously considered. Surgical measures devised for the relief of this condition have been many: Prostatic dilatation; Hawley's suggestion of doing away with the pelvic floor; Bier's iliac ligation; Helferich's resection of the vas; White's castration; Ridygier's resection; Delageniere's luxation of the prostate; Dittel's coccygectomy followed by prostatectomy; Ismardi's excision of the vas, leaving testicles; Bottini's urethral cauterization; Chetwood's cauterization; transvesical prostatotomy; subprapubic prostatectomy and parineal prostatectomy are some of the most important. It is Mr. Freyer, of London, who, having for many years operated at St. Peter's Hospital for stone, now leads the subprapubic school for the radical attack on the prostate. The mortality gathered from the many operators who remove the prostate by this route is about 11 percent.

Having had the opportunity to observe the operation of Mr. Freyer, and also Mr. Harrison and Mr. Pardoe, fresh from their teaching, the writer attacked his first nine cases by the subprapublic method. Of these, one was lost,—case No. 7. After that, the writer had the opportunity, for the first time, to witness prostatic surgery by some of the most eminent American operators. Convinced that this is essentially the method of choice, in the last 17 cases the writer has performed this operation alone. As is the danger to the peritoneal cavity in the subprapubic method, so is the danger to the rectum in the perineal method. By Freyer's method, the resultirg blood-clot in he sheath caused by the subprapubic removal en masse, is not touched; a large drainage tube is inserted and the usual after-treatment is carried out.

By Bryson's subprapubic method, the wound is packed with vaseline and iodoform gauze. His results have been most encouraging, he claiming that impotence, urinary fistulæ and incontinence are not so frequent as by the perineal route. This operation, however, is primarily contraindicated in very fat persons and in contracted bladders.

The writer has had no absolutely satisfactory syphonage of the bladder after the suprapubic removal, the constant leaking and excoriation of the skin being sources of considerable discomfort to the patient.

By the perineal route, the mortality at the hands of the various operators is 5½ percent., or one-half that of the suprapubic. The operation is extra-peritoneal, and in a field where nature has been peculiarly generous in her blood supply. This means an early union and a quicker repair. It does not seem to be thoroughly understood how the prostate can be removed from around the urethra without injuring the tube. The writer would liken it to a tunnel, with its appropriate masonry, going through a mountain; the mountain might be removed and still leave the tunnel with its masonry. The trouble is, however, that the line of cleavage is not accurately determined, and in the haste of the operation the mountain, tunnel and all are taken away. The hull is left—it is extraperitoneal, it is outside the bladder—the floor of the bladder has not been injured or torn, union is happy and results are good. By the suprapubic route, the hole left behind must permit of leakage and extravasation with consequent chances of infection.

The writer believes that the inverted V, starting well anteriorly with the divergent branches on either side of the anus posteriorly, is the incision of choice. It is carried down upon the bulb which is now better dissected and turned to one side than incised, as it bleeds freely and, at times, obscures the field.

Another point: The entire arterial supply of the perineum comes from the internal pudic which, escaping from the greater sacro-sciatic notch, runs back into the lesser and hugs the inner margin of the tuberosity under cover of the falciform process of the greater sacro-sciatic ligament. It now breaks into several divisions, and running centrally, spreads out upon the perineum. This artery being cut, has retracted deeply and more than once caused serious and fatal hemorrhage. The writer would call attention to its anatomical location. Pressure firmly applied to the inner surface of the

tuber ischii must control this hemorrhage, as it crushes the artery against its bony background.

The incision in the membranous urethra allows Young's retractor to be slipped into the bladder and the prostate pulled down toward the operator but still covered by the muscles and fascia. It is the posterior layer of the levator ani, which converging around the anterior margin of the rectum, splits again and encircles the prostate. These fibres are the recto-urethralis muscle and must be severed at right angles between the rectum behind and the prostate in front to allow the gland to be pulled into view. A large, flat retractor is put into the wound and shoves back against the sacrum the anterior wall of the rectum. This is the keynote to the operation. The levator ani is now stripped from the median line to either side, the retractor pulled down upon, not using it as a lever against the under surface of the pubes to force the prostate into view, but by firm, gentle traction downwards. With gauze, the surrounding vessels and small structures are stripped back and the sheath formed by the recto-vesical fascia is incised in the middle line, the finger inserted between it and the capsule, and the gland is ready for partial or total enucleation.

We have already mentioned that the periprostatic plexus of veins runs in the sheath laterally and mesially. Few veins are found inferiorly. The sheath, then, may be incised in the middle line, stripped from the capsule and, carrying with it the veins, there is no trouble about any great hemorrhage for they are still left behind intact. A large perineal tube, 28 F., is inserted in the membranous urethra, the bladder irrigated with a cherry-red iodine solution, the wound sewed in layers, a small strip of one-fourth inch gauze brought up on either side for the escaping serum and drainage, the skin sewed together tightly and the patient returned to bed.

In criticizing the operation as now performed in most of the hospitals, the writer would call attention to the fact of insufficient preparation of the operation. When we recall that the back pressure which has been maintained for so many years, is suddenly removed, the necessary hyperæmia and congestion which follow the relief of thi smechanical obstruction does not allow of the functional capacity of the organs involved. For this reason, drugs are used to stimulate these congested organs. The writer does not believe that this is based upon the best therapeutic principles. If before the operation the alimentary canal is emptied of its contents, the kidneys helped to activity by drinking large quantities of water, following the operation *staungs niere* will be temporary, for they will take up their duties as soon as they can, if left alone and are not goaded to desperation by the unnecessary use of stimulants.

The writer has had in this series, three cases of cancer of the prostate which have been denied operation. Starting centrally, concer manifests itself only when it has gained sufficient size to obstruct the normal outflow of urine. It is then that it can be felt, per rectum, to be hard, that the gland is slightly, if at all, movable, at symmetrically enlarged and the finger swept up about the internal ring and the concavity of the sacrum, may already notice metastatic enlargement there. As in the operation of panhysterectomy, where the lumbar, retroperitoneal and iliac glands must be thoroughly removed from beneath the peritoneum which is stripped up, so in its anologue, cancer of the prostate, the operation without removal of the enlarged glands is palliative only and cannot prolong life for any great length of time. Again, when springing peripherally, it soon manifests itself by the ulcerations in the rectum and bladder. The escape of blood is large and uncontrollable. The measures now adopted are for the relief of the hemorrhage and pain, and not for the relief of the condition.

The writer has sent letters to each patient of the series, and about 50 percent. have so far replied. One says that he still has some leakage through the perineum. This particular operation was performed 17 months ago. Two say they have to get up at night to urinate. In no instance was there an injury to the rectum. One states that he has not lost his courage: one that he drips some after he passes his water. The latter was a suprapublic evacuation en masse, a thorough control of the sphincter never having been established.

In conclusion, the writer would call attention to a complete prostatectomy as a radical cure for chronic, relapsing, gonorrheal prostatitis. In this instance, the young man contracted gonorrhea 10 years ago. Since then, he has had innumerably outbursts characterized by severe discharge, frequent and painful urination and relapsing epididymitis or epididymo-orchitis. The prostate was moderately enlarged, boggy and painful. Massage expressed on each occasion, pus cells, gonococci and broken down products. Sitz tubs and rectal irrigations were religiously carried out at each eruption, until wearied with the frequency of the attacks and understanding that the source of infection was the prostate, through realizing the severity of the operation, he willingly subject himself to any radical procedure which ed

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thought stood a fair chance of bettering, probably curing, his troubles. On March 1st, by perineal section the prostate was satisfactorily removed. The patient left hospital at the end of the fifth week; the wound had entirely healed. Daily irrigations of a mild solution of permanganate of potassium have been carried out and, at present, there is absolutely no discharge, the patient retains his urine throughout the night and from four to five hours during the day, and has already gained much in weight and spirits. The focus of the infection having been removed, the writer believes this patient to be much better off than it would have been possible ever to have accomplished by medication, instrumentation or washings.

With a greater familiarity with the anatomical relationship of the structures in the perineum, with a clear cut and well defined idea of what one is attempting to do, with the right recognition of the structures, disguised as they may be by dislodgement and maceration, the operation has been recently more shortened than formerly. Again, following the operation, we now allow the thickened, tortuous arteries, the congested kidneys, the pulmonary, cardiac and central strain of the anesthetic to gradually dwindle by enforced rest and quietness in bed for several days; for we were formerly taught that like the old horse who one got down never to get up, the tired and shocked patient should be made to get up after the operation despite the energetic protestations of inability to do so. This certainly appears more humane and surgical. The writer recalls one case in which the enlargement of the prostate was of such unusual dimensions that by pressing upon and distressing the obturator nerve, there was a constant, tonic spasm of the adductor muscles of the thigh. In this instsnce the results were very satisfactory following perineal prostatectomy. In another instance of acute, gonorrheal follicular prostatitis, the prostate, as large as a lemon, so seriously embarrassed urination that, by straining and pressing there was a most pronounced and disfiguring subconjunctival ecchymosis. This is the only instance of its kind the writer recalls ever having seen.

Balsam peru and castor oil, equal parts, poured into the wound is a most excellent stimulant to the tissues, is absolutely painless and possesses the added virtue of being powerfully antiseptic. The only ill-effect the writer has ever seen following its use is a dermatitis which soon disappears.

The writer would conclude as follows:

I. Prepare the patient for two weeks for the surgical ordeal.

II. Perineal operation is always one of choice, except in ball-valve and horse-collar overgrowths.

III. Leaving the middle lobe carrying the ejaculatory ducts is unnecessary and may be the cause of further trouble.

IV. Wash out the bladder and kidneys with water, not with drugs.

V. Let the patient stay in bed as long as you think he should in other major operations.

VI. Cancer of the prostate and bladder may be attacked by the method already described, followed by the x-ray.

VII. The writer has had no experience with the Bottini, Chetwood and White operations, and, therefore, cannot speak of their value.

Fifth and Main streets.

A Case of Abdominal Gun-Shot Wound with Intestinal Perforations, with Special Reference to the After-Treatment with "Saline Drip."*

By Theodore Maddox, M. D., Union, S. C.

The following case is presented because the results of the after-treatment were so satisfactory, restoring seemingly a hopeless case.

Abdominal gun-shot wounds with intestinal perforations occasion much suffering and cause many deaths. It is therefore of sufficient importance to warrant a word of commendation regarding anything which we may consider conducive to recovery.

It was my intention to review this subject, but on second thought I concluded merely to present the case and briefly make a few suggestions, especially on the after-treatment, to those who may see this report.

The treatment must be prompt lest the patient become exsanguinated. The surgeon should go equipped for any and all abdominal work, as I shall demonstrate to you in my report of case that the range of a bullet after penetrating the abdominal cavity is unknown in many instances.

In cases with intestinal perforation with blood and fœcal matter poured into the cavity thereby carrying the infectious material over its entire surface, we know that irrigation will remove only the non-adherent particles. Sponging will remove much of this adherent matter, but is very irritating to the viscera and we should be very cautious or a more violent inflammatory condition will ensue, thereby adding additional danger to the patient.

It has been demonstrated that irrigation, sponging and ordinary drainage is insufficient in this class of patients, as the perito-

*Read before Tri-State Medical Society, Charleston, South Carolina.

neum absorbs the infectious material too rapidly. The object then must be to make an excreting instead of an absorbing membrane. For this purpose I think the "saline drip" is superior to all other methods, and the technique is so simple that the novice may operate it with the greatest ease. An ordinary fountain syringe with a rectal tube, or large catheter is all that is necessary. The syringe should be elevated only about two feet above the level of the patient, and the clamp should be so arranged that only one drop of a normal saline solution should drop into the bowel about every second. Should this quantity prove to be more or less than is required the clamp on the tube can be regulated accordingly. The solution should be kept warm if possible, as this will materially aid absorption from the bowel.

I make no claim of originality in the treatment herein described—it has been absorbed doubtless from the teachings of others, but from whom, or at what time I cannot say.

Russell P., age 3 years. On December 23, 1908, he received an accidental gunshot wound with a 22 calibre parlor rifle. The bullet penetrated the abdominal wall about 2½ inches below umbilicus and one inch to the left of median line. It ranged backward and slightly upward making nine punctures in the ileum. The first section of intestine brought into view contained three punctures, two of which were separated by about ¼ inch of tissue, while the third was some two inches from the first two. These were held by an assistant and the search continued. About 20 inches from the first three, four other punctures were found, ranging from ¼ to three inches apart. These were in like manner held by the assistant and the search continued. About 12 inches distant two additional punctures were discovered, one of which was at the mesentery border of the intestine. The search was continued for several feet, but as nothing was found I decided to repair the damage already discovered, which was done with a Czerny-Lambert suture, a resection of intestine not being considered advisable. After all the punctures had been repaired I inspected all the abdominal viscera that could possibly have been within range of the bullet, which included both large and small intestines, left kidney, ureter, bladder and anterior surface of posterior abdominal wall.

It was found that the ball penetrated the iliacus muscle about an inch below the crest of the ilium, and about the same distance from the sacrum. It did not penetrate the bone, but instead had been deflected, so quite naturally I expected to find it imbedded under the iliacus or psoas muscles. A careful examination failed to locate it, or even find a passage leading off from the wound in any direction. It is possible for the ilio-lumbar, or lumbo-sacral ligaments to have closed the passage so thoroughly that it could not be found with the probe, or the bullet could have rebounded and removed with a blood clot, there being no less than a quart of these in the cavity, or it might have jammed the intestine against the ilium in such manner that it rebounded and was left within the lumen of the gut, or it may have been flattened and imbedded to such an extent that it was impossible to outline it. The blood clots were examined, but I think some had been removed before the examination was made. The stools were examined for several days but failure to recover it was likewise met with.

Owing to the great loss of blood, which made the prognosis extremely unfavorable, and feeling that to continue the search would only jeopardize the life of the patient without accomplishing the desired result the abdominal cavity was closed. A large iodoform gauze drain was placed well down in the pelvis in order that I would be sure of getting the pus.

On the second day the patient developed peritonitis vomit, and inasmuch as there was great abdominal distention it looked as if death was inevitable, but this gradually subsided and on the fourth and fifth days he was only occasionally nauseated.

After 48 hours the drain was removed and the incision, intestines and peritoneum were in an unusually healthy condition and free from pus. The appearance of the viscera indicated that drainage through the bowel had been very decided, inasmuch as there was not a trace of odor other than from the iodoform, which latter was very faint. A light iodoform gauze tampon was placed in the wound down to the peritoneum and dressing re-applied. In 48 hours this was removed without pus, wound still having a good healthy appearance. A light iodoform gauze tampon was again placed in the wound, but not quite so deep as before, and dressing re-applied. Owing to rectal irritation and healthy condition of wound and lessening of abdominal distention, which latter had been very marked throughout, the "saline drip" was discontinued.

Owing to the fact that the patient was not doing quite so well on the fifth day the wound was again opened and "saline drip" resumed. At this time the wound was not quite so healthy, still it was thought advisable to close one of the two remaining sutures, thereby reducing the ventral drain-

age by about half. The "saline drip" was continued for about 36 hours, at which time wound was again dressed. At this time the tissues were much improved and the wound was closed with the remaining suture and ventral drainage discontinued.

On account of rectal irritation the "saline drip" was discontinued on the following day, but several small saline enemata, after the Murphy method, were used daily for 48 hours, after which time they were discontinued.

Recovery was uneventful after the tenth day, and today the patient is enjoying the same degree of good health as before the accident.

In considering this case I am impressed with the following facts well worth considering:

1st. In using the "Saline drip" you create an excreting instead of an absorbing peritoneum.

2nd. In permitting the saline solution to drip high into the bowel it can be so regulated that absorption is decidedly favored and regurgitation far less liable to occur.

3rd. At 24-hour intervals the patient would have two or three copious evacuations from the bowel, after which he was each time much improved.

4th. Several times patient's entire body was covered with sodium chloride crystals, which demonstrated that absorption from the bowel was very decided.

5th. Most of these cases, as in this one, are exsanguinated from internal hæmorrhage, and the saline solution replenishes the blood stream in addition to draining the peritoneal cavity.

6th. It is my opinion that the abdominal cavity could be closed a great deal earlier than was done in this case. In fact, I think that it could have been closed immediately, although I would hesitate to be the first to do so.

Gastric Ulcer.*

By Matt Otey Burke, M. D., Richmond, Va.

Only during the last century have we been able to classify as a distinct disease round ulcer of the stomach. Cruvilhier was the first to give a clear, anatomical description of stomach ulcers, and for this reason it has been called Cruvilhier's disease. We have all, doubtless, had cases of gastric ulcer that we never recognized as such, probably because we were not looking for ulcer or because the symptoms were masked by other conditions.

Statistics shows that 5 per cent. of autopsies reveal gastric ulcer in some stage. There have been many theories advanced as to the cause of ulcer, most of which have been exploded, and, unfortunately, we are yet without a definite cause for the trouble. To say that we are dealing with a chemical, mechanical or thermic lesion does not always explain the facts in the case, for we have many cases that show no such previous lesion. On the other hand, many such lesions have been known to recover without producing ulcers.

To attribute the cause to over-production of hydrochloric acid is not satisfactory, for we have hundreds of cases of double the normal amount of hydrochloric acid which show no ulcers in the gastric walls. To say that vegetarians seldom, and that flesh eaters frequently, have ulcer does not give us a cause. Some think that chlorosis and gastric ulcer go hand in hand, but this too has been proven false. Occupation has but little to do with the cause, for we find the same condition existing in the idle and the industrious, in the rich and in the poor. Altitude and climate have but little effect. Ulcers are more frequently found in women than in men. Age seems to play a considerable part. The years most prolific for gastric ulcer are 20 to 40, but younger and older subjects have been victims. Circumstantial evidence points most forcibly to the nervous system, the blood vessels and the lymphatics, and the burden of proof seems to rest on the last two. Are these the real cause, or are they only agents of the offending object? I am inclined to the latter theory. Since we invariably have stomach trouble with appendicitis and gall-tract infection is it not only possible but also highly probable that some form of infection may travel by way of the lymphatics or blood vessels to the stomach walls and there produce the necrosis which we call gastric ulcer!

Muscular contraction must be an accomplice, for we find more ulcers in the pyloric end of the stomach where the grinding process is greatest. The gastric juice is a factor only in destroying the tissues involved and preventing the healing process. This is proven by the rest treatment and gastro-enterostomy, which operation changes the course of the food current and this, in a measure, prevents the grinding process in the pylorus and decreases very materially the amount of juices in contact with the ulcer. The operation gives mechanical and chemical rest to the ulcer.

*Read before the Richmond Academy of Medicine and Surgery, April 13, 1909.

The chief causative factors of gastric ulcer, so far as our present knowledge, are localized loss of nutrition, mechanical irritation and chemical destruction.

Pathology.—The macroscopic appearance of the serous membrane or external surface of a non-perforating ulcer is that of a lump or nodule in the wall of the stomach, usually, almost invariably, in the course of a blood vessel. From the interior, it presents a funnel shape, "the edges clean cut, the base smooth, or it may show little islands sometimes covered with coagulated blood, or tough, dark mucus." The size of the ulcer varies from that of a pea to several centimeters. The most usual seat is at or near the pylorus, though it may be in any part of the stomach wall.

The microscopic appearance of a fresh ulcer: "The glandular tubules present a trough shape as if cut off. In old ulcers a reactive inflammation sets in at the periphery and leads to the formation of a callousted margin;" the fibrous framework is thickened, the glandular epithelium has undergone a change, and the lab cells have been replaced by cubical or cylindrical cells. Their nuclei are not recognizable by ordinary staining; their protoplasm has undergone a hyaline degeneration, "the submucous is permeated by a profuse, small-cell infiltration and a strong, vascular network." "The layers of the muscularis are separated by fibrillary, intermediate tissue." The entire process is surrounded by a zone of irritation. There is always a tendency for the floor of the ulcer to adhere to the tissue beneath it. Cicatrization begins and the fibrous network is soon covered by the mucous membrane, though it may continue to contact beneath the membrane, thus causing a constant source of irritation and distorted shape to the walls of the stomach, especially when adhesions to neighboring viscera have taken place. Necrosis continuesuntil cicatriza tion takes place and so long as peptic gastric juice comes in contact with the ulcer. There is a tendency to thrombosis caused by the corrosive effect of the gastric juice, but this thrombus is destroyed as soon as sufficient juice comes in contact with it, thus producing hemorrhage. If the necrosis extends to the serosa, an adhesion to neighboring organs is formed with peri gastritis: or if in the dependent part of the stomach, perforation into the cavity occurs and is followed by general peritonitis, frequently by death. Sometimes there is perforation which is stopped by adhesions to the omentum, and sometimes a circumscribed abscess forms.

Symptoms.—The symptoms of a typical gastric ulcer are pain, tenderness, vomiting, hemorrhage, constipation and increased hydrochloric acid. As the development of the ulcer is gradual, so will the symptoms be insidious. In most, if not all cases of peptic ulcer, we have a well developed pain or great discomfort after eating. The time of the appearance of the pain depends upon the seat of the ulcer, and the severity depends very largely upon the quantity and the quality of the food. The pain is due to mechanical, chemical and thermic irritation. Coarse foods and foods not well masticated produce more pain than liquids. The food causes a secretion of hydrochloric acid, and larger particles take up less acid than finely divided particles: hence, we have more pain from this source. The ulcer produces more or less irritation to the nerves of the stomach which causes an increased amount of acid to be secreted. The excess of hydrochloric acid and the irritation of the ulcer causes a firm contraction of the pylorus and prolonged retention of food; hence, fermentation of starches and fats which distends the walls of the stomach, thus increasing the tension of the ulcer, with exaggerated pain, often reversed peristalsis and vomiting. The pain is also increased by swallowing food that is very hot or very cold. Usually, the pain ceases as soon as the stomach is empty either from vomiting or food passing into the intestines.

If the ulcer is in the fundus of the stomach, the pain will come on immediately after eating: if near the pylorus, a little later; if in the duodenum, still later. Vomiting seldom occurs when the stomach is empty, generally after meals—and is usually caused by a spasm of the pylorus and reversed peristalsis. The spasm is produced by the irritating effect of the hydrochloric acid add the food particles coming in contact with the raw surface of the ulcer. The vomited material consists of undigested particles of food (usually starches and fats, as the proteids have been digested by the abundant gastric juice), mucus and, sometimes, streaks of blood, occult blood and free hydrochloric acid. There is more or less tenderness in the epigastric region. Boaz lays considerable stress on the pressure points in the median line half way between the umbilicus and the ensiform cartilage and the dorsal points over the 10th and 12th dorsal vertebrae. There is an excess of hydrochloric acid in most cases of ulcer, especially if there is much irritation caused by the ulcer. This is a nervous or irritation hyperchlorhydria. Constipation usually accompanies excessive hydrochloric acid.

Many cases of ulcer run their course without distinct hemorrhage. It is said that hemorrhage occurs in from about 30 to 40 per cent. Hemorrhage may be independent

of a paroxysm of pain or the ingestion of food. It frequently comes on without warning, sometimes several hours after taking food, during the night or in the early morning hours or when the patient is about his usual duties. On the other hand, hemorrhage may be produced by circumstances which accelerate cardiac action or increase mechanical irritation; or coarse articles of food may cause hemorrhage. Frequently, there is considerable hemorrhage without vomiting, the blood passing into the intestines. The ulcer may be in the duodenum; in such case the stools have a tarry appearance.

The patient may present none of the classical symptoms, yet the suspicion of ulcer is so strong that we begin to take circumstantial evidence in the case and by exclusion, linked with some positive proof, arrive at a conviction. A patient showing loss of weight and strength with no history of severe pain, no vomiting, no distinct hemorrhage from the stomach or bowels, slight discomfort after eating, at times loss of appetite, nervous and, in spite of rest and ordinary treatment, continues to grow pale and weak; finally, he presents a waxy pallor with extreme emaciation. The heart, lungs, liver, kidneys and spleen show no lesion, the stomach contents may be normal or present a slight excess or deficient amount of hydrochloric acid, but no lactic acid or Oppler-Boaz bacilli. Haemoglobin is deficient, erythrocytes greatly reduced, leukocytes not increased and there is no evidence of diarrhea. We would naturally suspect a leaking ulcer in the pylorus or duodenum; in such case the stools would show occult blood, and from this symptom complex we would diagnose ulcer.

Diagnosis.—Given a case presenting the classical symptoms, pain, vomiting, hemorrhage, hyperchlorhydria, etc., we must decide whether they are caused by gastric ulcer or some other trouble, Is the pain due to ulcer or simple hyperchlorhydria, cardialgia, gall-stone or cancer? In hyperchlorhydria we do not have hemorrhage or occult blood, the dorsal pressure points are absent. Cardialgic pains are not dependent upon food and there is no hemorrhage. In gall-stones the hydrochloric acid is generally decreased; we usually have jaundice; the pressure points are further to the right. Paroxysms do not depend upon food, but are often increased by overloading the stomach. Cancer is generally found in older subjects: pain does not always depend upon the intake of food, but is frequently relieved by it; hydrochloric acid is more often decreased; lactic acid and Oppler-Boaz bacilli ate usually present. The duration of the trouble may aid very materially in making the diagnosis. Ulcer may continue for years; cancer does not often last more than 18 or 24 months. When a cancer springs from an old ulcer and in the early stage of cancer the diagnosis is difficult.

Is the hemorrhage due to ulcer or some other cause, such as tuberculosis, cancer, cirrhosis, varicose veins, traumatism, scurvy or some acute infectious disease? The history of the case and the general symptoms will usually clear up the diagnosis.

Treatment.—This may be considered under three heads—the rest cure, nitrate of silver and bismuth.

The rest cure.—A patient who has hemorrhage should be kept absolutely quiet for several days—at least one week. The bed-pan should be used for evacuations of the bowels and urine. For 24 hours no food should be administered by the mouth, not even ice water. For 24 or 48 hours, no food should be administered at all unless the patient is very weak, and then only nutrient enemas should be given, such as solid peptonoids, alcohol and warm saline; or milk, yolk of egg, salt, flour. They should not be given oftener than every eight hours, ice bags should be applied to the epigastrium. Drugs that often prove beneficial are ergot, adrenalin and chloride of calcium.

2nd week.—Rest in bed; hot poultices to the epigastrium; warm milk; beef tea; liquid peptonoids; albumen.

3rd week.—Morning and evening, while in the recumbent position, the patient should take a glass of alkaline mineral water; hot poultices should be applied to the stomach. The diet is the same as in the second week. If there is no tenderness or discomfort over the stomach, the patient may sit up in bed at the end of the third week.

4th week.—The patient may be up in the room and about the house. The diet should be bland, such as mashed potatoes, purees of vegetables, tender, rare meats.

The nitrate of silver cure is highly recommended by Gerhardt, beginning with nitrate of silver, .25 to 120 cc. of water, taking a tablespoonful in a wineglassful of water on an empty stomach three times a day. During the second week the silver may be increased to .3, and the third and fourth weeks to .4. He also recommends washing the stomach with 1:1000 nitrate of silver solution.

Bismuth is administered in very large doses on an empty stomach, two or three times a day, and it is said that these large doses do not produce constipation.

If the pain is very severe, it is necessary

to administer morphia hypodermically; if it is only slight, it may be relieved with chloroform water and bismuth or some of the milder anodynes.

Where perforation has occurred, a surgical operation is the only hope of saving the patient's life. Where there is a slight but constant bleeding which does not respond readily to rest and treatment, surgical intervention is indicated.

Typhoid Fever. Importance of Early Diagnosis—Fasting—Special Diet—Surgical Rest of Bowel—and Simplicity of Treatment.

By Dr. A. J. Burkholder, Mt. Sydney, Va.

This disease has a very interesting history, and was for several centuries confused with typhus fever. Ancient writers describe in part what we recognize as typhoid; but to a physician of this country justly belongs the distinction of first differentiating, and setting forth clinically and pathologically this fever as a separate and distinct disease. From American sources even today we are able to study this disease with greater satisfaction than from foreign observers.

The time allotted will not permit of a discussion of the complex manifestations and types of infection, modes of entrance, systemic effect, and complications. Therefore we will confine this brief to the consideration of a few points found in the sick room—leaving those winged questions until our aeroplane is sufficient thereof.

With the advancement of medical science we are able to delve into the depths of mystery, defy disease by immunization and antitoxin. Yet we must not forget that many of these valuable agents are only in their infancy of development, and many of the valuable tests employed in diagnosis are not infallible, are confirmatory if positive, and if negative in no wise proves that disease does not exist. The time has not yet arrived, and never will, when we can in our laboratory diagnose the patient. That is what we propose to treat, therefore let's come down. With the advancement of our profession, there is a growing tendency to wander away from convictions of bedside study. Yet what evidence has been produced to show that the clinical conclusions of eighty-five years ago should be displaced by the observations of today? The long tail coat, the solemn face, the silent tread, the modulated tone, the lancet and depleting measures have gone, and with them the impression plate, bedside diagnosis. The clinical picture of typhoid fever as drawn by Chapman, by Wood, and by Thompson eighty-odd years ago stands as a living monument today to those profound students; and when compared with our most recent writings, those not yet dry from the printer's ink, they define clearly in every line those diagnostic symptoms observed at the bedside, upon which alone they depended.

We would here enter a plea for a closer clinical study of disease, especially typhoid fever; for upon an early diagnosis, immediate in many cases, depends the life of the patient. Even where the least suspicion exists it should be regarded typhoid and treated as such until you go and develop your cultures, search through available literature, and make several mathematical calculations as to possibilities. These means of diagnosis are to our credit. Yet let us not forget that too often valuable time is lost. The life of the patient and our success demands that we act then and there—no future time offered. To do this requires a higher degree of trained powers of observation; and such should be our aim, our first and main dependence.

Years ago—and so it is today universally admitted that the food factor is one of the most important questions to be solved. Every writer and every practitioner holds to his own belief, however, all with varying degree of success. Many claiming that in the event such diet produces disorder it should be withdrawn. The most natural question suggested by that direction is this: by withdrawing the offending agent, can you also always withdraw the evil effect produced? If such diet is competent of producing disorders, is it rational to employ it in a single case? Withdrawn, after the stomach rebels, after the crippled bowel has been unduly excited, after mixed infection has been favored, after the toxic system has been borne down to the very brink of the grave by increased sepsis, after the vital forces have lost all power of resistance, after cell activity ceases from profound toxemia? And, we might add, after distention favors a long list of dangers.

That life giving fluid that stands par excellence hermetically sealed, transposed by transfusion, possessing all the nutritive elements, the proximate principals, kind for kind, gives abundant evidence of its utility in its natural sphere. This connecting link that spans the chasm from darkness to light ceases to be food at a certain period. Nature so says. We will patiently await evidence to the contrary.

Let's leave off the milk and give beef bullion, possibly we will grow a better culture.

In the administration of drugs we consider the physiological action, the therapeutical action, and the toxic action; and we are very careful to carefully guard the

latter motion. Why should we be indifferent in regard to other substances that likewise have indirect toxic effect? Pathologically the gravest lesions exist in the bowel, we all admit that we are in the presence of gastro-intestinal catarrh with hyperplasia, and that irritating food increases peristalsis, which increases absorption of toxins, and sepsis thus produced increases nitrogenous waste more rapidly than the typhoid toxin.

Therefore, let us regard these cases from a surgical standpoint, and treat them as we would any other lesion of the viscera. Rest, perfect rest, not only of every vital organ, but bowel rest. This means that nothing within nor anything from without should disturb the patient; even the very atmosphere he breathes should carry nothing but oxygen; not even one of those innocent lynx eyed members of the winged fraternity should receive admittance to the sick chamber, for he is on no mission of mercy, neither when he goes forth does he bear good tidings. A quiet room, a nurse not afraid of work and possessing sufficient intelligence to realize that nursing consists in attending to directions given by the physician, are essential.

The following treatment has been employed by the writer in quite a number of cases without a single death, and only two complications, which however quickly made complete recoveries.

1st visit. If only suspicious of typhoid, mercurial purge, fasting 24 hours, water only allowed.

2nd visit. If digestive tract has been cleared, albumin water is allowed every two hours; if not, small dose of salts or oil is administered, fasting continued until laxative acts.

3rd visit. Albumin water continued. If symptoms produced by full bowel have subsided liquid peptonoids are added to diet, either independent or alternating albumin water. Intestinal antiseptic is now begun.

My favorite is:

R	Bismuth sulphate	
	Bismuth salicylate aa	3 ss
	Zinci sulphocarbolate	gr. iij
	Guaiacol	gr. iv
	M——capsules 24	

Sig: 1 capsule every two hours until diarrhoea ceases—then continue one capsule every four hours.

4th visit. Tea and coffee added to diet if desired.

Nourishment has been given only during the day up to this period, which after this is given once only from 10 p. m. to 5 or 6 a. m. Provided we are dealing with a strong patient, no stimulant is given. However with the majority sulph. of strychnia is begun early and increased as required. The time of commencement and dosage being indicated by toxemia, which should be given at time antiseptic is given, and both at regular time for nourishment in order that frequent administrations may be avoided.

All nourishment is iced, and the patient is encouraged to drink freely of water. Good results are often secured in this direction by offering a full glass through a glass tube at time medicine is administered.

The usual lemon flavor of albumin water may be displaced by a dash of nutmeg if desired.

No change is made in this diet unless patient rebels, until practically all acute abdominal symptoms subside. After which one to three raw eggs a day are allowed. Oat meal gruel next is given. When the evening temperature becomes normal a small piece of toasted sweet yeast bread may be allowed twice daily, fresh buttermilk from cream not over two days old given in quantities of one-fourth glass may be allowed with toast, or the yolk of a soft boiled egg is often preferred on the toast. At this period the albumin water is omitted; but liquid peptonoids are continued at intervals between semi-solid or solid nourishment. Enforced use of bed pan during entire illness.

The cold pack is used for half hour every two hours during the day and up to 10 p. m., while temperature remains above 103; from 8 a. m. to 10 p. m. if over 101; after this, usually at 1, 4, 6 and 8 p. m. will be ample to insure a good night. Enemas are resorted to if required. A broken dose of mild chloride at bed time is now frequently in order.

The ice cap is used in many cases and is of especial advantage in children. In children the intestinal antiseptic is not usually required.

The patient is kept in bed until the evening temperature remains normal, until reasonable strength has been regained, until absolutely all symptoms of fever have disappeared. After this we may with comparative safety permit the patient to sit up a while every morning; and my rule is to allow them to find their way out after arriving at this stage. Tonics are usually given for several weeks.

In detailing this simple treatment, I do not mean to convey the idea that simply a mechanical rule is followed; but I am on the other hand fully convinced that more fever patients would recover if the doctor in charge possessed only such drugs as are clearly indicated to conserve the vital forces.

In this disease greater danger lies in the administration of medicine than in the dis-

ease itself. The deportment of the physician should inspire confidence, and little fluctuations necessarily met with should be silently watched; but not treated through fear: for generally by the next visit they will be different. The constant and frequent change of medicine does serious harm.

Complications demand appropriate treatment.

The Value of Employment in Cases of Dementia Praecox.*

By Paul V. Anderson, M. D., State Hospital, Morganton, N. C.

In attempting to write on any phase of dementia praecox, I realize fully that the ground has been covered in every respect and my only reason for selecting this subject is to call attention to the importance of early employment in these cases and to plead for a more systematic attempt at their reeducation before they are cast aside as hopeless derelicts. At least, give them the benefit of a trial.

We should not be absolutely pessimistic. Advanced methods of treatment have robbed many other diseases of their horrors. Therefore, is it not possible that the baneful after-effects of dementia praecox may—to a degree, at least—be mitigated?

It is conceded that many of these cases retain to a considerable degree the knowledge and skill formerly acquired. Every physician can easily call to mind numerous individuals in his own practice who have suffered physical loss, but who in spite of serious handicap and because of enforced adjustment to a changed bodily condition, live fairly active and productive lives. Almost every vocation has in it the semi cripple, those who have lost a leg, an arm, an eye, the function of an ear, or who have chronic hepatitis or nephritis or cardiac or pulmonary disease and yet, some of these men and women have, by sheer force of circumstances and will power, taught themselves to disregard the thorn in the flesh, and have given full proof of their ability to add to human progress. The proposition that brain disease and the consequent intellectual disorganization is more serious than the loss of any limb, I have no wish to deny. I do wish, however, to emphasize the humaneness and the hopefulness of the modern view point which encourages us to look upon the mentally defective—especially upon the praecox cases—as those who, because of cerebral disorders, have entered again only into an intellectual infancy, and that it is possible to educate, literally to lead out of this mental gloom many of these cases, I shall hope to establish.

The physician, especially the physician who works with the insane, should have always in mind that he has two duties to perform. The first of these he owes to the patient, and this highest obligation is to make the patient comfortable and happy. The other duty is to society and that duty is the awakening in the mentally enfeebled the dormant tendencies to provide for themselves and thereby lighten the State's ever-increasing burden. The few cases to be cited will tend to make these propositions seem the more plausible.

A woman now thirty-two years of age has been in the Hospital for twelve years. Until the past three years, she spent most of her time on the floor, took no interest in her personal appearance or her surroundings, kept her head covered with a shawl almost all the time, and had occasional violent outbursts of temper. By careful persuasion she was induced to sit in a chair. Next she was given a broom and was persuaded to help with the sweeping; then she was encouraged to sew, and as she improved she became more careful of her appearance. She was sent to the mattress factory and there did excellent work. Now, she works in the laundry, is tidy and goes regularly to the dances and to chapel.

Another case occurred in a girl of eighteen, whose father, brother and uncles have been patients in this Hospital. For quite a while after admission, she had to be dressed and taken to the dining room. She would hide under the bed, lay on the floor most of the time, was silent and sullen and resisted every effort made in her behalf. She manifested no pride at all in her dress. By patient effort she was induced to dress herself, to sit in a chair then to help on the ward, then to sew and finally she was sent to the laundry. She soon became cheerful and very industrious. She gained weight and took quite a pride in her dress. Later, she was able to go home and has been doing nicely there for more than two years. Her brother, also a praecox case is, now at home and is doing very well.

A woman of twenty-nine had been in the Hospital one year. For several months after admission, she was obscene, profane and filthy in her habits and tore up everything she could lay her hands on. At times, she fought viciously. The dementia seemed to be marked. Yet, she was by degrees induced to help on the ward and to sew. As she improved, she dressed more neatly, ceased fighting and tearing her clothes, and as in the other cases went to the laundry and soon became one of the best ironers.

*Read before Tri State Med. Society, Charleston, S. C.

She was quite cheerful and finally was allowed to go home and has been able to carry on her household duties for two years.

Another patient was a school girl of eighteen. She walked in a stilted manner and never spoke. Much of the time she spent on the floor with saliva drooling from her mouth. She was filthy in her habits and would not wear her clothes. The dementia seemed to be permanent. She was gradually induced to wear her clothes and when this was accomplished she was finally prevailed upon to help with the sweeping and the ward work. By degrees she became tidy, and then she went to walk each day and gathered flowers for the ward, and finally she began to sew. Next she went to the laundry and did efficient work. She became so much improved that she was permitted to go home and has been able to stay there a year.

Another girl was twenty-one when admitted. She has been in the Hospital for nine years. Until three years ago, she sat in the same place on the ward all day with her head bent forward and her hands hanging listlessly at her side. The nurse had to start her before she would go and she could not dress herself. This she was patiently taught to do and gradually she was led from one thing to another until now she is able to go to the laundry and, though exceedingly slow, does fairly good work. She takes a pride in her dress and a special pride in dressing her hair.

Finally, I wish to mention a case of special interest in a woman of thirty-two. The psychosis had existed three years and probably longer when she was admitted to the Hospital. Her father has been an inmate of this Hospital and her grandfather and two aunts had been insane. For quite a while after her admission, she would lie on the floor and was intensely suicidal. She would hide when the doctor came on the ward, was slovenly in appearance and took no interest in her surroundings. One day she was accidentally seen watching a fellow patient draw with colored crayons, and she was asked if she did not wish to draw. Crayons and paper were provided for her. At first, she would sit on the floor behind the door and draw, but gradually she began to sit out on the ward in a chair and no longer tried to hide. She became tidy in her dress and soon showed unexpected artistic ability. Some of her drawings were well conceived and admirably executed. She also began to do needle work and sent gifts to her husband and children. She became much more cheerful, talked and played games with her fellow-patients and wrote pleasant and sometimes facetious letters to her husband. In fact, she seemed to take a new lease on life. Unfortunately, she developed pulmonary tuberculosis. Had she lived, possibly she might have improved sufficiently to go home.

These cases might be added to indefinitely, but I have given a sufficient number to show what may be done with cases of a varying degree of impairment. Much of the necessary work of the Hospital, i.e., the laundry work, sewing, mattress making, bottoming chairs and basket making, is done by females, many of whom show a marked degree of dementia. The occupation not only makes them happier and more contented, but helps to provide for their own maintenance.

The same policy has been carried out on the male side and to a greater extent, because of the fact that more congenial employments can be found for the men of this class. Two are employed as mail carriers; eight are working in the garden; largely independently most of the time. One of these cases is quite interesting, and to quote his words, he is "a leetle slow and awkward." It takes him quite a while to get to his work as he finds it necessary to turn around and retrace a few steps after he has walked several yards. Although slow, he accomplishes a good deal in a day. One is employed at an incinerating plant and does more work and does it better than the ordinary hired man. Another works in the laundry, and although he seldom makes a sensible remark he is as regular as clock work, never missing a day, and he does excellent work. Three are in the shoe shop and one is in the bake shop. Another is at the green house, while still another is the linen marker. Seven are at work in the dairy, some of whom are always incoherent, yet they are up every morning at four o'clock and do as much work as the hired hands. Two are at the store house and one is a butcher. He is quite an excellent one, too. Ten are employed around the buildings and ten or more keep the grounds in order.

More than three score men are at work at the Colony, most of whom show the blighting effects of early dementia. The Colony provides conditions which are ideal for this class of patients. Here they find pleasant employment in the garden, truck patches, vineyards, orchard and poultry yard. The heating plant is managed solely by a man who has been demented for many years. Before the Colony afforded work in which he now takes particular pride, he had spent many years within the confines of a large ward.

The Superintendent of our Hospital, Dr. John McCampbell, realizing the beneficial results of Colony treatment, has now in

process of construction on a nearby farm, Colony buildings for one hundred men. The agreeable employment provided in this way will undoubtedly result in the mental reawakening of many who otherwise would be doomed to a vegetating existence on the wards.

Quite a number of cases occurring in young men and women from seventeen to twenty-five in whom the deterioration was not so marked might be cited who stayed in the Hospital for periods varying from a few months to a year or two and have gone home. Many have remained there; some have been able to take quite an active part in the battle of life and some have had to take a less important part, but no matter how little the production, society has been the better for it.

Now, I do not mean to say that all cases of dementia praecox can be improved by any methods whatsoever—I do not mean to say that any great number can be cured, for irreparable damage has been done to the brain tissue as a rule, but I do say that a vast number can be made productive in the outside world under proper supervision and others can be made permanently productive and take a more or less prominent place in the affairs of the world.

President's Address.

By J. F. Highsmith, M. D., Fayetteville, N. C.

Ladies and Gentlemen, Fellow Members of the Medical Society of the State of North Carolina:

To be the official head of this association is an honor for which I am grateful. Here and now I desire to assure you of my sincere appreciation of the honor of presiding over this, the 56th annual session of this learned body. It is my heart's most earnest desire to maintain the excellence of this organization and the high standard of my distinguished predecessors.

Fellow members, once again we have met together, for the fourth time, in the fair city of Asheville. A decade since our last meeting in this queenly city—the Switzerland of North Carolina—far famed for her hospitality to the stranger that is within her gates—known the world over for her beauty and her climate.

Great changes have come during these ten years. Many who were with us then have finished their work here and have been called to higher service, bequeathing to us examples of lives nobly lived, spent in unselfish service for others. Their lives have *not been lost*, for as Ruskin has said: "Every noble life leaves the fiber of it interwoven forever in the work of the world."

In casting about for a theme to speak to you upon to-day, many subjects present themselves to my mind, but it seems to me the question of the relation of the medical profession to the people along the lines of hygiene and preventive medicine, is one of the vital questions of the day. And certainly along these lines science looks to us for enlargement of the boundaries, by conquest over the domain of ignorance of the people.

It is probably true that in no other department of learning has education been advanced so rapidly as in medicine. Legislatures and leaders of the people everywhere are more and more looking to us, the medical profession, for proper information in the passage of laws to guard public health.

Ours is the noblest of professions, therefore, it is our duty, as special guardians of the people, to allow no false modesty to stand in our way to prevent us bodily and righteously doing our duty to prevent in every way possible the spread of that which makes the lives of the innocent miserable.

As we are to consider the enlightenment of the people as to personal and municipal health and hygiene it might be well to briefly call attention, among ourselves, to some of the advances of the medical profession in the past few years. The past thirty years have been the most active period in the acquisition of medical knowledge and medical art. It marks the transformation from the old to the new. It is characterized by the most fruitful endeavors and the most brilliant achievements that have yet been added to the chronicles of the profession of medicine. The time has past when this art is associated with witchcraft and superstition, but established on a firmer basis—when men are spending their lives investigating, experimenting and giving reasons.

Even less than twenty years ago the student could be graduated in medicine after two years of study. Only the crudest preliminary education was required. Surgery was narrow and limited compared with what it is to-day, and consisted chiefly in ligating for aneurysm, performing tracheotomy, amputation and resection; operating for empyema, strangulated hernia, stone in the bladder; reducing dislocations; setting and dressing fractures; trephining for head injuries; caring for wounds; removing foreign bodies; and extirpating tumors. A few surgeons were doing ovariotomy. Comparatively few operations were done, and many ignorant people were afraid of hospitals—would go to one only in the last extremity, and then went in deadly terror. In 1877 the great wave of surgical progress, which is one of the most notable

events of a notable age, was beginning to form a moving billow.

Appendicitis was unknown, and was to remain so until Fitz, of Boston, published his paper in 1866. Mellin had guessed the truth in 1827, but he was suppressed by authority, and thousands died because of it. In 1887 drugs producing local anesthesia had not been discovered. The essential importance of embryology in solving many problems of disease was beginning to be appreciated. Pathology, chemistry, and physiology were becoming fruitful sources of marvels.

We have had the Laboratory of Anatomy for centuries—we must now have laboratories for at least a dozen other subjects. No hospital is complete at present without an up-to-date laboratory. No physician can intelligently practice his profession without the daily use of the microscope.

A few progressive and able men had grasped the full importance of the recent discovery of Pasteur—had realized that infectious diseases were probably due to bacteria, and that preventive medicine was destined to become one of the highest callings to which man could devote his brain and consecrate his life work.

Antisepsis has wrought marvels as mighty as were ever conjured by the seal of Solomon. It really made possible most of the surgery of the brain, the chest, the abdomen, and the abdominal viscera. It has practically abolished the so-called blood poisoning as a sequel to surgical operations. It has immensely mitigated postoperative pain and fever; arrested puerperal septicemia with its destruction to the child bearing woman. It has lessened the mortality of major amputations from 50% to 5%; of of compound fractures of the long bones from over 50% to 1%; of ovariotomy from 50% to about 5%, or less. The discovery of anesthesia, antisepsis, and the creation of the science of bacteriology have been the *three great* triumphs of medicine in the 19th ceatury. The scientific practice of medicine is today based on objective pathological experiments. I believe to-day we are on the eve of still greater discoveries for the well being of mankind.

As I have before said, with the light we have gained it is our solemn duty to our fellowman to promote the general welfare of the communities in which we live, by instructing them. Everything pertaining to medicine is of vital interest to the public, to every man, woman and child, be they rich or poor. There is no science or art that has a closer relation to the human race than medicine, and none that is so clothed in mystery.

The question arises, How shall this education be accomplished? I answer, the leaders of the people and prominent men, who occupy responsible positions, must first be educated, for through them we can reach the masses. The education of the masses must be accomplished through public organizations—the press, the legislature, the churches and the schools. To preserve health and prevent disease are the objects of modern medicine.

Hygiene or preventive medicine has only arisen in the last 40 years. It has lagged farther behind than any other branch in medicine. But this to be brought up with the other branches must be done by educating the masses, and getting them to understand and co-operate with us. Men must be educated for the purpose of teaching the people and through this channel we will be able to fight the preventable diseases.

If it is necessary to show that our knowledge of hygiene is still limited, we need only look around us in our own cities and towns, and country as well. A startling ignorance of the laws of health is found in almost every farm-house, cotton factory villages, manufacturing villages, and even in many of our cities to a large extent. Many diseases coming from these sources, as we know, are recognized as preventable, if the community was only aroused to the necessity, and the possibility of their prevention. But thanks be, there are signs of awakening! We notice that the University of Virginia has announced a summer course for the training of those interested in subjects connected with the prevention and improvement of public health. This course began on yesterday and will continue until July 24th. It is especially for health officers, medical inspectors, and similar public officers. The same Institution will inaugurate in September a four years course for the training of sanitary engineers. A course of lectures will also be given on selected topics on public health, some of which are intended especially for public health students, while others are open to all students in the University.

I hope to see this step taken by all the Universities and Colleges in this country.

The Insurance Companies are beginning to realize the great need of sanitary laws and their proper enforcement. To quote Dr. Irvin Fisher, Professor of "Political Economy" of Yale, and president of the "Committee of One Hundred of National Health," in a recent address before the Association of Life Insurance Presidents, said: "A fall of the death rate always promptly follows sanitation. Colonel Gorgas cut the death rate of Havana in two, bringing it

down to 15% or less. The New York death rate responded at once to Col. Warrick's clean streets, and that of Rochester to Dr. Coler's milk crusade; and now it is announced that New York's death rate is 16.5%, the lowest on record. A result in all human probability due to the hygienic work of Dr. Darlington, the efficient health officer; Nathan Strauss, the milk reformer, and the public agitation for health, by the "New York Times," "The Journal," and other media allied with the health work of the "Committee of One Hundred of National Health," the Tuberculosis Association, and committees, and other organizations. These and other facts, and the mass of detailed figures which they represent, show conclusively that human life is long or short precisely under the hygienic conditions under which it is lived, that human life can be prolonged as these hygienic conditions are improved, and that there is still enormous room for improvement.

A report which Dr. Fisher compiled for the Conservation Commission, based on data from American sources, shows that human life in America can be prolonged by the adoption of hygienic reform already known over one third or more than fifteen years.

Tuberculosis is known to be preventable. In Dr. Fisher's report it is entered as 75 per cent. preventable; Typhoid 85 per cent. Pneumonia 45 per cent. Many diseases such as cancer are entered 0 per cent. preventable, although the best expert would allow some degree of preventability, if prevention begins early enough in life. On these premises we find that about two years of the possible lengthening of the human life would be due to the elimination of preventable tuberculosis, 6 per cent a year would be due to the prevention of Typhoid 4 per cent. a year to the Diphtheria, 9 per cent. a year to the elimination of preventable accidents. At least 8 years could be added to the average life by securing reasonably pure air, water, and milk. Applying what is actually known in hygiene, the death rate amongst insured people could be reduced nearly one half during the decades, between thirty and sixty, about one seventh during the next decades. According to this plan which the writer had in mind, life insurance money invested in saving life would not be in Hospitals, but in the education of the public, and particularly their policy holders, in health matters, and joining in every legitimate way to improve the public health offices and services in the municipalities, States, and Federal Government.

We need in North Carolina laws to back us, then competent men elected to fill the positions created, and they paid for their services, not merely holding the position honorary, but with their shoulder to the wheel, earnest in their endeavor to make North Carolina the most healthful State in the Union, with vital statistics, on an accurate basis to prove it, in keeping with other civilized countries. Vital statistics are the very basis and foundation of any attempt to better the general health. Public hygiene is built on it, is controlled and directed by, and is everlastingly in debt to vital statistics, and to it belongs the might and the right to direct the future of preventive medicine. We need more medical legislators. There are golden opportunities for some of our medical talent of North Carolina to distinguish themselves by services of eminent value in our legislative halls. And, while he may not have an open reward, he will have a reward which is possibly unknown to him, but he will have, best of all, the pure joy of service well rendered. To do things that are worth doing —to be in the thick of it—Ah, that is to live!

I shall not attempt to suggest a number of new laws to be enforced, but urge that the laws we already have be carried out to the letter. I would like to make only a few suggestions along this line. There should be a State law requiring every case of tuberculosis to be promptly reported by the attending physician. Then the patient should receive treatment at a Sanatorium if possible, and they should go as soon as a diagnosis is made, for every tuberculous patient is a source of danger to all who come in contact with them. Not only the open air treatment with rest and forced feeding; but the educational advantages will accomplish great good among the people, for they are taught to ward off and protect themselves and others against the disease. When they return to their homes they will impart the information gained to their families and neighbors and the result will be that the entire community will be benefitted by it, and tuberculosis will be on the decrease instead of increase.

There should also be a law making it a misdemeanor for any parent or parents to allow any remediable deformity of their children to go untreated. If the parents are not sensible enough to realize that it is for the child's future usefulness as a good citizen that it should have a healthy body, then the State should make them realize it by compelling them under penalty to give the child every chance for recovery. One mother when asked why she did not have her child's deformity attended to replied: this was a double club foot in a little girl), "Well, God made her so and I will let her stay so." The poor ignorant mother did not

know it was a result of transgression of nature's laws.

There should be a law demanding that Medical Examiners be elected to the schools in North Carolina. Other States and many towns and cities have realized the importance of this and have seen good results from it. In the United States, Boston seems to be entitled to the credit of establishing the first regular system of Medical Inspection of Schools. This was done in 1894. Forty physicians were elected by the Board of Health to inspect the public schools of Boston. In 1895 nine such inspectors were appointed in Chicago. In 1894 the Board of Health of New York elected 134 Medical Inspectors for the public schools. In 1898 the Bureau of Health of Philadelphia passed a resolution directing that each of the fifteen Assistant Medical Inspectors should visit one public school in his district each day, inspecting it according to the methods employed in Boston, New York and Chicago.

Only four general state laws providing for or allowing medical inspection of schools have been passed. In Connecticutt in 1899 the Legislature passed a law providing for the testing of eyesight in all the public schools of the State. New Jersey has a law authorizing the Board of Education to employ medical inspection of schools and defining their duties. Vermont has a law since 1904, requiring an annual examination of eyes, ears and throats of school children. In 1906, Massachusetts passed a law which is comprehensive in its provisions, and mandatory throughout the State, the only mandatory law of its kind in the country. It requires every town and city to establish and maintain a system of medical inspection by competent physicians for the detection of contagious diseases in the schools. Examinations must be made annually by the Inspector of all the pupils for physical defects, and their eyesight and hearing tested every year. There is, so far as can be ascertained, some form of medical inspection in vogue at present in seventy cities in the United States outside of Massachusetts. But the United States is still behind Germany, and a number of foreign countries in this important movement.

The educated physician, let him specialize in whatsoever line he may, has it in his power to protect the families, and the people at large against contact with infectious and contagious diseases, and has it in his power to place those who may consult him on a sound and honest basis. Therefore, I believe for the good of the people that we should never have but one Medical Examining Board in North Carolina, and every man or woman who propose to practice the art of healing, or curing the people, whether they be Homeopath, Osteopath, Eclectic, Christian Scientist, Allopath, they should be made by law to pass examinations showing that they are well grounded in the fundamental principles of medicine, anatomy, physiology, and pathology, before they are allowed to practice. For unto all come the ill and diseased, and they should know enough to diagnose the case before treating it. I hold that no man can diagnose and treat any case intelligently until he first knows the anatomy—second, the normal functions of the body—third, what pathological changes are to be looked for.

A law to compel all practitioners, no matter whether they give drugs or not, to pass examination showing that they possess knowledge of the fundamental branches would protect the people. Then the Osteopath would know enough to send a case of suppurative appenditicis to a surgeon, and not undertake to remove the cause by manipulation, and by so doing, in all possibility, rupture the mass and let the patient die of peritonitis all because of his ignorance. Or the Christian Scientist who suggests to the poor anaemic, who is languid, has little strength for daily tasks, bad digestion, etc., that he is not sick, but that he only thinks so. It is all imagination. When if they were examined by an intelligent diagnostician would probably find early signs of tuberculosis. Then if he was honest would warn his patient that this was the time to make the fight, and by so doing he would add years, if not a complete recovery to the patient, instead of chaining him by his deception to await a slow, loathsome disease that will number the patient among its many victims, slowly but surely.

There are signs of awakening in North Carolina which will crystalize with efficient organized efforts under State direction and control. This is shown in many ways too numerous for me to deal with in so short a time. Suffice it to mention two or three of the most important events in the line of progress.

The Legislature of 1909, this year, appropriated thirty thousand dollars for the permanent improvement of the State Sanatorium for Tuberculosis, and also increased the annual maintainance. This makes in all, given to this Institution, in the neighborhood of $58,000.00. This Institution is located at Montrose, Cumberland Co., a most beautiful location for an institution of its kind.

This is a small beginning when we consider the great need but shows progress in the right direction and will do great good to many who enter this Institution for treatment. Besides the educational feature of

this Institution will accomplish untold good throughout the country.

The last Legislature appropriated a sufficient sum to secure the entire services of the Secretary to the State Board of Health, and require that he give his entire time to that office. The State Board of Health has elected to this position, as you are aware, Dr. W. S. Rankin, formerly dean of the Medical Department of Wake Forest College. In electing Dr. Rankin as Secretary, the Board has not only honored Dr. Rankin, but they have likewise honored themselves, and I feel that Dr. Rankin will discharge the important duties of this office with fidelity, honor and credit to himself, as well as to the State.

The State and the Medical Profession of North Carolina owe a lasting debt of gratitude to our honored retiring Secretary—Dr. R. H. Lewis, who filled faithfully this position for 18 years, and retired at his own request. We feel grateful for his work and know that his most efficient services made it possible to secure the entire time of a Secretary to the State Board of Health.

This is a very decided advance since it gives an active member to the Board of Health, making it possible for him to devote his entire time to this office

I trust that the time is not far distant when each County in the State will realize the importance of having their County Superintendent of Health on a salary sufficient to justify him in devoting his entire time to that office. There is increased work for him to do with the increase in population. He could be kept busy improving the sanitary condition of the towns in his County, looking after the jails, and the schools, and he could easily be appointed the Medical Inspector of Schools in his respective County. The conservation of health promotes the conservation of wealth, and vice versa, therefore it would pay the County to do this from a commercial standpoint, to say nothing of the good done in the way of preventing disease and saving human life, and building up our country with strong, healthy men and women.

With our State organized in this way and the people educated, with other States acting in accord with us, a consumation which will necessarily come, we will soon have "A National Department of Public Health," all joining hand in hand—National, State, and County. This done we will soon have laws to back us, vital statistics accurate, and preventable diseases placed at a minimum, and more lives, more homes, and more money saved, than by any other general agency in the whole plan of Government. Think for a moment that during last year 1,500,000 persons died and 100,000 were sick, involving the comfort and material prosperity of 5,000,000 homes, and 25,000,000 people, and that one-third of this was directly preventable. On account of inadequate authority for medical officers during the Spanish-American war, we lost sixteen of our soldiers from preventable disease to every one lost in battle. And 85 out of each 100 of them were inmates of Hospitals during that short struggle from some character of disease. During the Russo-Japanese war, with medical officers having co-equal authority and rank, except on field of battle, Japan lost but one of her men from sickness to every four killed in battle, and only fifteen of every one hundred of them ever saw the inside of a Hospital. As an argument for peace, we are told, that two hundred and ten thousand men died as the result of battle in both armies during the Civil War. As an argument for health laws we are told, that seven hundred and fifty thousand people died of tuberculosis in the United States during the last four years, and that at least three quarters of a million are continuously sick of it.

For a moment think of the money annually expended by the Department of Agriculture, $10,000,000 in the last ten years, in investigation and extermination of fever in cattle, cholera in hogs, pests in cotton, corn, etc., and other profitable things of commercial value; then compare with the assistance we have received from our Legislature in this our unselfish warfare against pestilence affecting men, women, and children. We have been called a Medical Trust.—God forgive, and may such as think thus see us as we are—the noblest of all professions, poorest of all trades!

God direct and give us men of sound minds and healthy bodies who are earnest and *enthusiastic* over this great work. It has been said that enthusiasm is the motive force of progress. No really great deeds were ever done in arts or arms, in literature or science, that was not the product of enthusiasm. It beckoned Columbus across the ocean; it struck fire from cold flint; it invented the alphabet; and it saw in the steam wreaths from a tea-kettle a force greater than that of all the men in the world united; it tunneled the Hudson; it took signals under the ocean; it carried messages through the air; and it harnessed lightning to carry the vehicles of man. It discovered the circulation of the blood; invented the ligature; it introduced vaccination and anaesthesia; and it laid the gentle hand of healing on the wounds of humanity through antiseptic surgery.

It was with the three noble medical heroes who gave their lives to free a large section of the country from the annual dread of

cholera and yellow fever, and made possible the building of the Panama Canal.

May we feel it! May we be animated by this immortal principle! May we be driven by this divine fire! And of our work, let us see to it that when the final summons comes, it can be said of us, "Greater love hath no man than this, that he lay down his life for his friends."

The Essentially Different Treatment Required for Some Conditions Often Mistaken for Neurasthenic.*

By Tom A. Williams, M. B. M. C. (Edin.)
Washington, D. C.

Some neurologists even of our own day believe that "psycho-neurosis," that all-embracing term, is a sufficiently precise diagnostic guide to treatment.

They believe this because they do not recoguize that any differences in the treatment of neurotic individuals are susceptible of being classed. They think that the treatment consists of the therapeutists' innumerable adjustments to an infinite variety of individuals each quite unlike the other except in so far as one resembles the others in being a psycho-neurotic.

For these clinicians, any distinctions drawn between hysteria, psychasthenia, neurasthenia, and hypochondriasis, and have only an academic value; as the treatment of each is, for them, the same. The object of this paper is to show the fallacies of the blunderbuss method entailed by so confusing a conception, and that from pyscho-neurotic conditions in general can be clearly separated, at least three clear types, and that as regards treatment these types differ as the poles.

Now-a-days strychnine and bromides are regarded as physiologically incompatible. Similarly belladonna is not prescribed with physostigmine, nor calcium with the alkalies. In the same way, I hope to make it clear that we have psychological incompatibles, which the indiscriminate application of the Weir Mitchell method often produces, much to the patient's hurt.

In the first place, I hope to show the criteria which enable us to prescribe the individual elements of psychic treatment.

Neurasthenia is often erroneously diagnosed on account of morbid fears and other psychic symptoms. Rockwell, for instance, including the phobias in the neurasthenic syndrome, narrates how he cured a gynophobiac by himself compelling the patient to buy from the girls in the stores. Now Janet (2) has clearly shown that the phobias are among the stigmata of *psychasthenia* in its emotional form. Among the other stigmata are the feeling of inadequacy, the psychological and physiological insufficiences, and the alteration of the feeling of reality; also the episodic forced-agitations, whether motorial (the tics and crises of agitation, including the dromomanias and fugues), or emotional (the phobias and angoisse), or intellectual, such as the ruminations, indecisions, definite monomanias, and the complete and typical obsessions. The presence of any of these, with the accompanying predominance of psychic over physical symptoms especially when inquietude dominates, constitutes a picture indicating more than the abulia, aprosexis, insomnia of a simple neurasthenia. When on the other hand, a patient suffering from nervous prostration is so asthenic as not to be constantly troubled by futile repetitions, explanations, symboles, hesitations or attempts at precision, or when he does not live in a day dream, or when he has not overwhelming pains or besetments as to his bodily functions or as to his relations with objects or people, or when he is not in a state of general distress, we may be pretty sure that we are at least not dealing with a psychasthenic. Even the feelings of incompleteness may have adequate grounds in the real exhaustion of the patient whose neurastheniacreates (more than a mere sentiment), a real incapacity to perceive, decide, to will, to act, to adapt himself to a new situation, to be other than timid, even to forget and lose in intelligence, as well as to be really melancholy or indifferent, and to require comfort and direction.

Now the true neurasthenic, has real pains, gastro-intestinal trouble, nutritive disorders, vasomotor and secretory pertubations and genital impotence; while the psychasthenic only dreads an incapacity which he thus creates by his anxiety. Moreover as Regis (3) points out the reference of these anxieties to subjects outside himself is very significant of the obsessive as against the neurasthenic state. Another important distinction is the patient's recognition of the illogicality, absurdity of the intrusive ideas or incapacitating feelings; while a neurasthenic believes what he believes, and knows that he believes it. Thus any sentiment of external causation, as it were, may certainly exclude neurasthenia, in which there is no struggle or effort against an intruder of seeming irresistibility.

Indeed marked psychic symptoms of marked continuance definitely exclude neurasthenia, which is being more and more regarded as a metabolic disorder from various sources such as perversion, excess or inadequacy of the internal secretions; gas-

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tro-intestinal auto-intoxication, so called, due to faulty diet; bacterial modifications of the flora of the digestive tract; chronic diseases, etc: not forgetting the constitutionally born tired individual.

From these considerations a clinician may know when he is dealing with more than a simple neurasthenia, and thus can avoid wasting the patient's time and money on a useless "rest cure," which would not only fail to ameliorate the psychasthenic symptoms, but would aggravate the patient's condition by isolating him from the stimuli of daily life, some of which are not injurious to his mental state and should be utilized as a fulcrum to uplift his will power, for which purpose they should be especially managed or at least arranged by the doctor.

The successful *psychotherapy* of psychasthenics is arduous, and often only relatively successful. Any isolation imposed upon these patients is confined to certain situations and acts, or is a mere simplification of their life; and the procedure is quite different to that used in hysteria to emphasize the suggestion, persuasion against, and re-education of the morbid trend. Nor is it the isolation required by the neurasthenic, for whom the deprivation of physiological stimuli is required to give rest to exhausted neurones and induce an anabolic phase. Psychasthenics, on the contrary, require physiological stimuli in order to maintain what Janet calls the "psychological tension. Of course, stimulation must be short of exhaustion. One of their characteristics is to be able to bear themselves well during temporary stresses. A physical, mental or moral strain when too long continued, however, is sure to induce a psychasthenic crisis, a desire for movement, feeling of unreality, expectant anxiety, or obsessive doubt, or any of their numerous modifications. Of course etymologically speaking, psychasthenia should be a form of neurasthenia, but nosologies do not depend upon etymology, else hysteria would be in a sad plight. I do not defend the term psychasthenia, but merely accept it as a now pretty well recognized clinical autonomy, representing at least a clearly defined mode of reaction to environment displayed by certain individuals, often of neuropathic heredity. As such it is clearly differentiable from the picture of neurasthenia, of which the dominant feature is fatigue and easy fatigability, as well as many physical symptoms not so usual in doubting madness and the other forms of what we have agreed to term psychasthenia.

It must be remembered that a truly neurasthenic condition may produce in certain individuals obsessive manifestations and morbid fears and timidities, as well as a heightened suggestibility. Moreover, intoxication by alcohol, haschish, or bacterial products in the course of infections may affect the psyche in either or both of these ways. These are the symptomatic psychasthenias and hysterias respectively, and are analogous, nosologically speaking, to symtomatic hallucinations, disorientation and delusions seen in the fevers or exhaustion.

Another form, psychasthenic in type, *false neurasthenia*, unfortunately too common, is that induced by the reaction of the patient against some disappointment, disgrace or other psychic trauma. In its essence this is what psychologists call a defense reaction, and further analyzed is one of the varieties of what Dupre (4) has termed *mythomania*, though of the types of which he speaks none simulate neurasthenia. The brilliant inventions of the constitutional liar, or those of poetic fancy, do not adapt themselves to so uninteresting a role as that of a neurasthenic; they tend rather to assert themselves in a more positive manner than the negation of activity entailed by the neurasthenic role. The appetite for distinction; the dislike of neglect determined to be fed, and having no means of satisfaction through exhibition of talent or capacity to perform in some useful way; or from indolence or cowardice of disposition, resorts to the extortion of sympathy by its perseverance in a suffering in which the patient indeed comes to believe.

Sympathy or even praise removes depression or vacuity of mind, titillates the psyche. A child who has learned to lean upon either is a candidate for false neurasthenia of this type when later in life some business or social project miscarries. When a person is ruined or slighted, or when ambition fails, neurasthenia is often diagnosed and a rest cure imposed. Psychotherapy pure and simple, is the true indication; for the state was not neurasthenia, but a palsy of will and interest whose psychogenesis is manifest in the fixed idea of a determination to lie down acquire thus the moral comfort to their vanity the misfortune itself did not bring largely enough to satify it.

The personality of many a woman denied a legitimate field eventually shows itself in chronic neurasthenia (sic). Her beautiful resignation at last gives her the eclat she has long craved; she now has an object for which she exists, and nurses that as carefully as her husband does his business or a naturalist his collection.

A remarkable case (5) of this kind has just come to the writer's notice. It was that of a naval yeoman, who after rapid promotion of which he had reason to be proud, utterly broke down on account of

the exactions and irritability of a new commander whom he could not please. His state of health eventuated in his desertion, although this stigma was later removed from his record. His symptoms were morosity and loss of interest and stamina, impotence, and overpowering desire to get away from his distressing environment and to go to his mother. He also seriously thought of committing suicide. He become suspicious to the point of believing that the object of his persecution was to promote over his head his clerk, who had been longer in the service and was more efficient than himself, though too unreliable for the chief post. As soon as he felt that he was in an asylum and free from the risk of having to return to an environment he could not stand, he began to improve, and recovered within three months. All the time, he was glad even to believe himself insane so as to get away; and indeed while under the treatment before going to the asylum had run away from home with a vague idea of finding employment. Although well in other respects, he still interprets his experience as an attempt by the commander to supplant him. If this is really a delusion of persecution, its strict limitation to the detail of the mental conflict it concerns would place it in the category of Friedman's first form of restricted *paranoia*, (6) which is cured through subsidence of the effective state which caused it; and although no insight comes, the delusion persists only as an intellectual complex without feeling tone. This type is distinguished from the allied form in which the delusions are endogenous, that is to say of hypochrondiacal type, resembling Gierlich's paranoia (7). Both are episodic affections, and hence difficult to distinguish from manic-depressive insanity, in which, however, insight occurs on recovery, the patient being astonished that he could ever have thought and acted as he did.

Of *hysteria* the treatment markedly differs. I speak of hysteria in the precise sense which we have learned to adopt from the recent work of the followers of Charcot (8). From them we have learned to exclude from the hitherto vague picture of hysteria every symptom which does not conform to the definition of Babinski (9): "Susceptible of being produced by suggestion and of being removed by suggestion-persuasion." The recent discussion at the Paris neurological society (10) summarized elsewhere by the writer (11) clearly excludes from hysteria alterations of the tendon reflexes, of the pupillary reactions, true muscular spasms in the sense in which the word is used by Brissaud (12) and described elsewhere by the writer (13) dermatographia, urticaria, oedema, phlyctenulla, fever and so on. The numerous instances where these phenomena have occurred along with such systoms as hemianesthesia and contracted visual fields in suggestible patients of mobile humor are referable to the intercurrent disease sometimes at the root of the hysterical state. But more often they are due to intentional trickery on the part of the patient of *mythomanic* tendencies (as Dupre has (14) described with his rare clinical insight from his large experience at the special police infirmary in Paris), in other words the constitutional liar, if it takes an evil direction, or the maker of romances if the sphere of the patient is literature or art. It is merely the carrying into adult life the child's love of phantasy, combined with the desire to attract attention or sympathy. If from a lack of capacity or opportunity it cannot find an outlet in the direction of creative art, the imperative desire to mystify or interest takes the vulgar form of the simulation of some bodily defect seen, read, or heard of.

I have elsewhere discussed the mechanism of the acquisition by imitation of simulated symptoms (15), which is merely a form of suggestion, and I have given examples (16) of cases where a suggestion has lain latent for long periods, such as those of a girl who became paralyzed as the result of a slight electric shock she felt or imagined on crossing a car line. Though she had completely forgotten the circumstance, close questioning revealed the fact that she had six months before heard some mechanicians narrating the dangers of electric shocks. Of course this hysterical palsy was quickly removed by suggestion. Another example was that of the Hebrew boy (17) who had retained his evacuations for three days while hiding in a barrel during the massacre in Russia. It was not until a year later that he developed retention of urine, quickly cured by suggestion.

Some clinicians, (18) however, believe that suggestibility occurs outside hysteria properly speaking, by which they mean that debiles, desequilibres, and persons in crepuscular states are suggestible. This of course is true; and in so far as they are suggestible, they are hysterics, the fact that they are something else as well no more negativeing the definition than does the presence of albumin in a diabetic negative the glycosuric character of that disease. Equally a person with organic heart disease may acquire phthisis, or a person with scarlet fever may contract diphtheria. Antitoxin will cure only the diphtheria: the cure in the open air will remove only the phthisis, leaving the cardiac disorder. In

the same way, the removal of hysterical symptoms by suggestion leaves the patient just as before with regard to his neurasthenia, mental debility, etc.

The tics, obsessions, feelings of inadequacy, timidities, scruples, ereutophobia, agraphobia and other morbid fears, as well as the impulses to steal and to act or speak obscenely and towards meaningless flights, all of these belong to the psychasthenic constitution, often called the obsessive state or *folie le doubte* from its characteristic symptom of uncertainty. Any of these symptoms, however, may be produced in a mon psychasthenic individual by suggestion. In this case, however, it can be as easily removed by the same means, thus distinguishing it from the true obsessive phenomenon which is accompanied by dread of its occurrence and is quite unmanenable to suggestion (19).

Now none of the preceding symptoms is essential to the neurasthenic state, which is a mere fatigue entirely irremediable by psycho therapeutic measures. It is true that in a fatigued condition the suggestibility of everyone augments; and a neurasthenic sometimes from mere tiredness will not resist solicitations to which in his normal state he would refuse to respond. It is also true that in his asthenic condition the easier course is sometimes to allow himself to be cheered up even against his own better judgment and to declare that he is better from the suggestion that he is better; for example, when soldiers are tired out by marching, their fatigue may apparently be removed by the psychic agency of music or the excitement of approaching battle. But it is only apparent, the reaction is all the greater. Similarly with a neurasthenic, encouragement, so often indiscriminately used by unskilful physicians, is followed by still greater depression and inadequacy. Intoxicated neurasthenics are no more capable of responding without injury to added stress than is the heart when compensation has failed. The neurologist sees many wrecks which have resulted from the uncalled for urging, so wadvisably applied by the laity of psychotherapeutic persuasion.

It is true that many so called cases of nervous break down go on the shelf merely from incapacity or want of desire to resist the auto suggestion or hetero-suggestion that they are not well. These are the *false neurasthenics by suggestion*" and until their health breaks down from the seclusion and confinement to which they are sometimes ignorantly subjected, they are curable merely by the removal of the false fixed idea that they are neurasthenic. The destruction of the fixed idea may require a considerable time and the process may perhaps be called suggestive-persuasion, as it combines the characteristics of each as defined by the writer elsewhere (20). It is these cases which have given rise to so much difficulty in laying down a clear symtomatology of the two affections, they are the hystero-neurasthenics of the older writers; and are by some still erroneously called neurasthenics. The most conspicuous recalcitrant in this respect is Dejerine, (21) who refuses to apply the conception of hysteria to the *false gastropaths* which he cures after the method of Dubois of Berne. (22) This method which both Dubois and Dejerine call persuasion, is conspicuously shown by Levi and Bayot, not to differ from the suggestion of Bernheim, and is practiced by them with great success, and in this country by Taylor of Boston, and others. The false gastropaths are in reality neurasthenic only, secondary to the malnutrition caused by their fixed idea they cannot digest. (23) This fixed idea generally arises by suggestion, that is, is hysterical, and is thus curable by suggestion. It is usually of medical origin, (24) and is the consequence of the temporary dyspepsia for which a doctor is consulted who does not recognize the necessity of wiping out the suggestion of disease induced by the precautions he advises the patient, and who is ignorant of the inhibitory effect of anxiety at meal-time on the flow of gastric juice. (25) A smaller proportion of false gastropathies arise secondarily to the shape of body (26) occurring in the scrupulous psychasthenic who has been imbued by certain of the doctrines which have attached themselves to the Christian religion. A still smaller proportion of mal-nutrition anorexias are the accompaniments of the modifications of the internal sensibility termed *cenesthopathy*, (27) and some are episodes in the course of a psychosis, more especially dementia precox. None of these are true neurasthenics, although of course anorexia is a prominent symptom of the neurasthenic state.

The foregoing considerations should enable an intelligent clinician to exclude by the positive sign of suggestibility any hysterical element in a difficult psychoneurotic case, and enable him to undertake its treatment with a much clearer conception of the indications to be met in addition.

Symptomatically speaking, *psychotherapy of hysteria* resolves itself into skilful suggestion; but this only removes the symptoms as they occur, or prevents them individually. It is analogous to the procedure of extracting the guinea worm or expelling the tape worm while leaving the head. Another analogy would be the removal of the neurotic areas due to a general infection.

Accordingly, the cause of the patient's suggestibility must be sought. It is derived from faulty education tending to perpetuate and to fortify the natural susceptibility of the child, sometimes in conjunction with a hereditary tendency or an acquired organic disease interfering with neuronic activity. *Re-education* (28) is the remedy in the first case; and in the last, failing removal of the organic cause, adjustment of the education in conformity with the patient's special deficiency. The principle is that of converting suggestibility into persuadability, (29) that is to say the substitution of the habit of dispassionately weighing and comparing impressions for the childlike immediacy of action by first impulse. This is an art in itself, and would require many chapters and illustrations for its adequate presentation.

It remains to differentiate the early stages of some psychoses; for though these are not treated by the practitioner, they are usually first seen by him; and much injury is done patients by confusing them with conditions such as the foregoing for example.

Hebephrenia. (30) In its commencement and early evolution the neurasthenic state to the casual observer does not differ at all from that characterizing the earlier stages of the simple forms of dementia precox, in the early stages of which the intellectual deficiency and emotional disorder are concealed by the conventional behavior which the patient automatically shows. An apt illustration is that of an intoxicated man who can accomplish quite well any task to which he is accustomed, but who shows himself quite incompetent in the face of something demanding unusual mental concentration.

Apathy, sluggishness, feeling of exhaustion and difficulty of making efforts characterize both neurasthenia and hebephrenia. The friends are very apt to magnify what they imagine to be the cause of "nervousness," which has in reality occurred, so to speak spontaneously. The preoccupation of these patients with the exigences of their life is not the cause of their disease, but is one of its effects. But there is a fundamental distinction between the diseases. Except at the very onset, a certain indifference shows in the future dements. This occurs especially with regard to their work. Careful questioning will often reveal a period during which work was done more slowly, with difficulty, a certain stumbling hesitancy. In the neurasthenic, this hardly exists; for fatigue predominates, he has not lost interest; moreover, he has not lost his affective instincts, they are rather exaggerated. In marked contrast with the future dement, who suddenly and without external cause, loses his ambition, his pride, his dislike, his care for his person, his fears (he cares for nothing not even himself) without regard and without apparent suffering. He is not irritable to outside things, small or great, as is the neurasthenic. The latter's egoism is entirely lacking in him.

The physical fatigue in dementia precox tends to occur in bursts, like a bolt from the blue, having no relation with the empty stomach, the morning heaviness, or the influence of mental or physical labor like that of the neurasthenic. Psychotherapy has no influence on these crises. It is in these cases that one sees the first indications of the characteristic signs of the dement, the automatisms, and stereotypes of movement, attitude or speech.

When carefully questioned, these patients always reveal hypochondriacal ideas; but these are never accompanied by obsessive anguish or morbid terror. The memory is generally intact, both for facts and calculation, while the neurasthenic's memory while sometimes impaired is so only during his crises of inertia after ascertainable fatigue.

The foregoing are difficult of appreciation; but there are certain others easy to verify the presence of which connotes something more than a mere nerve exhaustion. For example, grimaces and tics unaccompanied by imperative besetment or the emotion of anguish, sudden impulsions of rage or aimless wandering, or even to absurd acts; the persistent obstinate opposition to trifles known as negativism, especially when it alternates with extreme facility. When unusual peculiarities in behavior are added they are almost pathognomonic of the future dement. A most important symptom is the crazy laugh. This is explosive and without motive, having no emotional accompaniment, neither shame nor annoyance being shown by the patient. It very often terminates with an attack of tears. It is perhaps the most striking mark of the incongruity between the patient's emotional feeling and its manifestation; for the laugh may interrupt an attitude apparently denoting great sadness.

It must not be forgotten that physical symptoms occur in hebephrenia. The severe headaches are characteristic; peculiar visceral sensations I have found very common; treatment has little effect on these. There is nearly always anorexia, dyspepsia, constipation, gastro-intestinal intoxication, irregular menstruation, (in women), heavy sleep and insomnia in alternation, hyperhydrosis, especially on the palms, dilation of the pupils, tremor and emacia-

tion. So that the clinician must not believe that such physical symptoms necessarily indicate a mere passing intoxication with neurasthenicform accompaniments.

Having diagnosed hebephrenia we are yet unfortunately not in a position to prescribe a remedy; but as there is no evidence that the Wier Mitchell treatment is efficacious in these cases, we at least save the time, money and blighted hope of the patient's friends. Not that hope need be abandoned, for about 20% of these cases, more or less, recover spontaneously, many of them unfortunately becoming mere housebodies, as the Scotch express it, capable only of the most trifling tasks.

With *general paresis* of the insane the diagnosis of neurasthenia is sometimes a very delicate one. Much has been written on this subject, and in a recent article (31) I have attempted to point out the value of psychometric methods in making the diagnosis in those cases where there are no irregularities in the contour of the pupils nor abnormalities in the deep reflexes nor modification of the sensibility nor incoordination and trembling, nor troubles of speech, nor lymphocytosis of cerebro-spinal fluid. The great importance of early diagnosis of paresis is to be inferred from its luetic etiology, making it probable that early intensive treatment may arrest the morbid process, as it does in many cases of tabes dorsalis taken early, and as is indicated by the cases of the author. (32).

The melancholic phase of *manic depressive* insanity may at first be taken for neurasthenia. The chief symptoms which lead to a diagnosis are the constant retardation: while the melancholic answers in a monosyllable and that slowly, the neurasthenic though he speaks in a low tone, does not have the pronouncedly slow movement of the other and answers as a normal individual until he is fatigued or emotionally distressed. The neurasthenic expresses far more emotional depression than does the melancholic. Of course no delusion nor hallucinations nor even true hypochondriasis occur in neurasthenia. The cyclic character and alternating phases of manic depressive insanity will often reveal themselves by a careful search into the previous history. But in difficult cases the best course is to call in an experienced alienist, whose clinical tests may reveal a symptom which a general practitioner would not be able to elicit.

Involutional melancholia is nearly always of an apprehensive or agitated character, although the feeling may be subdued by the patient. Self accusatory delusions are nearly always a permanent part of the picture. A nervous break down at the climacteric period should make the physician think very carefully of this condition. Anxiety is the prominent feature in this psychosis. In the *presenile* form there is a feeling of uncertainty as well, while the form of simple apathy of the aged is the most like neurasthenia; for there are not delusions, and orientation is undisturbed. The desire to commit suicide is very significant involutional melancholia. From the *senile psychoses* neurasthenia is easily separated: for the former always shows intellectual deficit even when no delusions, silly emotionalisms, nor confusion is present. Lacunar amnesia and confabulation definitely exclude neurasthenia. (33).

Of *arteriosclerotic* conditions I have not spoken, the possible psychic abnormalities are protean: and the diagnosis rests mainly upon the physical signs, for whose application the internist is best qualified. The differentiation of this state is, however, of great importance in certain cases of neurasthenia. It must be recollected that in some cases with high blood pressure, the arteries feel so firm as to cause one to suspect a sclerosis, which, however, may not be present, the artery recovering its normal softness as soon as the blood pressure has been reduced.

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References:

1. Rockwell, Neurasthenia, Medical Record 1908.

2. Janet. Les Obsessions et la Psychasthenie, Paris, 1903.

3. Regis, Manuel de Psychiatrie, Paris, 1906.

4. Dupre, La Mythomanie Paris, 1906.

5. White, Washington Society of Mental and Nervous Diseases, Dec. 1908.

6. Friedman, Studies in Paronia.

7. Gerlich, Studies in Paranoia, Nervous and Mental Monograph Series, 1909.

8. Trend of the Clinicians Concept of Hysteria, New York, 1908, Boston Med. Jour. 1909.

9. Babinski, Ma Conception is l'Hysterie (Conference devant l'Interat) 1906, Paris.

10. Revue Neurologione 1908.

11. Williams, The Status of Hysteria, Med. News, 1908.

12. Brissaud, Lecons Cliniques sur les Maladies Nervouses, 1895.

13. Williams, Diagnosis of Tics and Spasms, Va. Med. Semi Monthly, Oct. 1908.

14. Dupres, Loc cit.

15. Williams, Le Role du Medecin en Event d'en Triumpher par ses Suggestions Maladroites des Maladies produites par l'Imagination, Congres de Lille 1906, Trans. Amer. Med. Aug. 1908.

16. Williams, International Clinics, 1908, Vol. 111, p. 14.

17. Raimist, Revue Neurologique, Paris, 1906.

18. Raymond, Dejerine and Dupres, in their discussion on Hysteria.

19. Raymond et Janet, Loc cit.

20. Williams, Alienist and Neurologist, 1909.

21. Dejerine, Les Fausse Castropathes, Presse Med. 1906.

22. Dubois, La Traitentment Morale des Pyscho Neuroses, Paris, 1904, Trans. New York, 1907.

23. Williams, The Most Common Cause of Nervous Indigestion, Jour. Abnormal Psychology, Boston, 1909.

24. Bernheim· Suggestion L'Hypnotism et Psychotherapy, 1903. Williams, Loc cit.

25. Pawlow, Functions of the Digestive Glands, London, 1900.

26. Janet, Loc cit.

27. Dupres et Camus, Cepresthopathes, L'Epcephale, Paris, 1907.

28. Levi, L'Education Rationale de la Volonte, Paris, Payot, L'Education de la Volonte, Paris.

29. Williams, Alienist and Neurologist Loc cit.

30. Pascal, La Forme, Pseudo neurasthenique de la Demence Precoce, Congras de Lille, 1906, L'Encephale, 1907.

31. Williams, Importance of Pychometry in the Diagnosis of Cerebral Disorders, International Clinics (to appear).

32. Williams, Loc. cit.

33. See Regis Manual of Psychiatry, 1906, White Outlines of Insanity, 1908.

Necrotic Anginas and Perforations of the Palate in Scarlatina.

P. Lereboullet gives histories of five cases of perforation of the soft palate in scarlatina. This is a rare complication of scarlet fever. In most cases it has proved fatal, but of the author's patients all recovered. It generally affects children under five years of age. A false membrane similar to that present in diphtheria first covers the tonsils and pillars of the fauces. In this membrane examination shows no diphtheria bacilli, but only streptococci. The glands are sometimes not infiltrated, but the general condition of the patient is bad. The larynx is not affected, but the nasal fossae may be involved. Fever is high. This lasts for some days, when the appearances rapidly change. The tonsils necrose and the palate may be perforated while the membrane clears up. There are no difficulties of deglutition or phonation. If death does not ensue the repair is rapid, the tissues showing little inflammatory reaction. The author believes that this condition is produced by the streptococci themselves, since no other bacilli are found in the exadation. Treatment consists of the usuul general measures and lavage of the parts, with dioxide of hydrogen or antiseptic washes.—La Progres Medical.

Electrization of the Stomach Studied with Radioscopy.

F. P. Sgobo has made a study of the value of applications of electricity to the stomach, watching the picture as it appeared by radiascopic examinations made while the electric current was in action. He used faradism, galvanism; and static electricty, and applied them within the stomach, and outside on the abdomen. The experiments were made upon dogs. Of the three forms of electricity used, the faradic current was most effective in producing in producing contractions of the stomach walls. Internal application gives no greater and even less effect than the best effect when applied transvesrely or anteroposteriorly. The monopolar method is also effective. Contractions of the abdominal muscles or diaphragm produce no stomach contractions. Static electricity gave no good results. The galvanic current is somwhat less effective than faradism. Applications made directly over the stomach are less effective than traïsverse ones. The galvanic current should be interrupted or poles changed, in order to order to get contractions of the stomach.—Giornale di Electricita Medica.

Entero—Colitis and Cholera Infantum.

The following advice from the pen of a well known Denver physician, will be found to be most seasonable and helpful, in the treating of entero-colitis.

"Cleanse the intestinal tract with calomel and a saline or with castor oil. Prescribe a suitable diet, easily digested and non-irritating. Irrigate the rectum and colon at suitable intervals with normal salt solution or some mild antiseptic, using for the purpose a soft rubber catheter or colon tube,

"Instead of opiates, which lock up the secretions and thereby favor auto-intoxication, relieve the muscular rigidity and the excruciating pain which is such a drain upon the vital foces by the use of Antiphlogistine as hot as can be borne over the entire abdominal walls and covered with absorbent cotton. If the patient is not too far gone, the effect will be astonishing. The little drawn faced patient, who until now has been suffering severely, will in most cases soon quiet down: the agonized expression will leave the face and restful slumber intervene, thus starting the child upon the road to recovery."

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CHARLOTTE, N. C.

MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

The fifty-sixth annual convention of the Medical Society of the State of North Carolina was called to order on the morning of June 15th, 1909, by Dr. T. R. W. Brown, chairman of the committee on arrangements, in the ball room of the magnificent Battery Park Hotel in Asheville. Prayer was offered by Rev. R. F. Campbell, D.D., after which Judge Thos. A. Jones, representing the Mayor of the city, delivered a splendid address of welcome. His speech abounded in good sound, common sense, the speaker laying particular emphasis on the need of a better knowledge on the part of doctors of medical jurisprudence. Judge Jones said that on the witness stand the doctors of North Carolina had always acquitted themselves courteously and as gentlemen, but he advised them to study some law and especially the law of medical jurisprudence. In this way, said he, could a doctor not only be able to hold his own before any court but be able to protect himself from being entangled by a lawyer who had probably made a special study of the subject under discussion for about a week previous to the trial, and was prepared with all kinds of questions to catch the expert doctor. He also suggested that they use fewer technical terms in their evidence, as they in that way greatly weaken their evidence, as a jury could not understand half a doctor said because of the terms he employed. "Speak to the jury in plain United States," said Judge Jones, "and not in Latin."

Dr. Chas. A. Julian, of Thomasville, made eloquent response. As is characteristic his speech was expressed in the choicest language. With eloquent figures he paid high tribute to Asheville, her people, her climate, her beautiful environs, her institutions and her doctors.

The president, Dr. J. F. Highsmith, in his address on "Hygiene in Relation to Public Health" sketched the wonderful advances made in Medical Science and the achievements in preventive medicine during the past thirty years. He emphasized the importance of educating the laity in order that there may be a proper appreciation of the attitude of the medical man in his efforts to improve sanitary conditions. He made several recommendations which should arouse the thoughtful consideration of every citizen of North Carolina. The first was that the State should pass a law requiring physicians to report every case of tuberculosis, and that the cases should be treated in sanitariums, and thus avoid the danger to the health of others.

The second was that a law should be passed making it a misdemeanor for any parent or guardian to allow a child who was born defective to go without sufficient medical treatment.

The third was that the legislature should pass a law providing for a sanitary inspector —a physician—who should visit the schools frequently and thoroughly look after the health of the school children. He called attention to the advances made by the last legislature in establishing a sanitarium for the treatment of tuberculosis, but said that this was only a step. The speaker believed that the State had advanced by appointing Dr. W. S. Rankin, of Wake Forest, to the new position of Secretary to the State Board of Health. He paid a great tribute to the work of Dr. R. H. Lewis, of Raleigh, who has done so much for public health.

Dr. Highsmith always has something to say and he says it well. It may not be out of place to express an opinion which is universal among members of this Society, viz., that as president he occupied the chair with grace and dignity, with fairness and justness.

The registration at the time of the opening session was estimated at two hundred, a figure that scarcely gives a true idea of the attendance. The program, while not as extensive as that of some other meetings, included many papers of very great scientific value and profound interest. The discussions, engaged in with the greatest enthusiasm, gave evidence of a genuine appreciation of what the meeting means to the doctors of our State. It would be impossible to mention all the papers and addresses in the space allowed for these comments, nor would it indeed be fair to attempt the task of specially drawing attention to any certain ones. A number of prominent physicians from other States were guests of the Society. Contributions from these gentlemen added considerably to the interest of the meeting. Several subjects of special importance were discussed at length—among these we mention especially the Pellagra and Tuberculosis Problems.

The con joint session of the State Board of Health and the Medical Society was presided over by Dr. George C. Thomas, of Wilmington, President of the State Board of Health, and chief surgeon for the Atlantic Coast Line Railway. In opening the meeting Dr. Thomas spoke of the very efficient

and very effective work of the retiring Secretary of the State Board of Health—Dr. R. H. Lewis, of Raleigh. He said that the work had been ably carried forward of advancing preventive medicine, and that much of this advance was due to the untiring zeal of Dr. Lewis. Others made many feeling and appropriate tributes to his services. The report of the Secretary of the Board of Health dealt with the very considerable advances made in this department in our State in particular and in preventive medicine in general. He mentioned the recognition on the part of the legislature of the value of the department by the increased appropriation. Reference was also made to the laws enacted which require proper analysis of mineral waters that are offered for sale, to the act making registration of deaths obligatory and to the provision for the free distribution of diphtheria antitoxin.

The North Carolina Society for the Prevention of Tuberculosis held a session for the election of officers, those chosen being:

President, Dr. W. L. Dunn, of Asheville.

Vice-president, Dr. Paul Ringer, of Asheville.

Secretary and treasurer, Dr. C. A. Julian, of Thomasville.

Chairman committee on arrangements, Dr. Roy Williams, of Greensboro.

The association is determined to make a great campaign along educational lines looking to the prevention of the spread of tuberculosis. This work will be taken up vigorously within the next year and the association is determined to push it.

An act of great significance was the election of Dr. Julian, the secretary of the Society for the Prevention of Tuberculosis, as assistant secretary of the State Board of Health, the latter thus giving full official recognition of the excellent work of the Society for the Prevention of Tuberculosis. This election of Dr. Julian means that the State Board of Health will shortly begin a very active campaign against the spread of tuberculosis.

Under the report of the Obituary Committee the eulogy of Dr. P. E. Hines by Dr. A. W. Knox, of Raleigh, was a beautiful tribute to one of North Carolina's famous doctors. It is one of the finest bits of literature the State Society has ever heard. We call special attention to it.

The annual oration by Dr. Moseley, of Greensboro, had for its text, "The Evolution of Medical Science, a Symposium of Its Past and Its Manifest Destiny." The paper manifested much brilliant research and dealt with the development of medicine from the earliest ages from the time of the Pharaohs, through the dark ages, up to the present. He likewise in fluent portrayal forecasted the future of the medical profession.

Essayist Dr. W. L. Dunn spoke of "Sentimental Barriers of Scientific Advancement," among those being named antivivisection and opposition to post-mortems. He pointed out how the most notable discoveries in medicine had been attained through vivisection and maintained that while there might be rare, very rare cases of unnecessary vivisection the cause of humanity demanded some suffering from the lower animals, pointing out that untold suffering to countless thousands of human beings had been avoided through the results of experiments made on a few animals. Vaster progress could be made in medicine, he said, if physicians were permitted to hold post-mortems on patients. He made no suggestion, but simply pointed out the loss to humanity which result from prejudice.

The election of officers resulted as follows:

President—Dr. J. A. Burroughs, of Asheville.

First vice-president—Dr. E. J. Wood, of Wilmington.

Second vice-president—Dr. John Q. Myers, of Charlotte.

Third vice-president—Dr. L. D. Wharton, of Smithfield.

Secretary—Dr. D. A. Stanton, of High Point, re-elected.

Orator—Dr. Cyrus Thompson, of Jacksonville, N. C.

Essayist—Dr. R. V. Brawley, of Salisbury.

Leader of Debate—Dr. D. A. Garrison, of Gastonia.

Treasurer—Dr. H. D. Walker, of Elizabeth City.

Delegate to the American Medical Association—Dr. T. E. W. Brown, of Asheville, Alternate—Dr. J. B. McGoughan, of Fayetteville.

Wrightsville was selected as the place of meeting, on the third Tuesday in next June. Dr. George G. Thomas, of Wilmington, was chosen as chairman of the committee on arrangements for the meeting next year.

Committees were appointed as follows:

On public policy and legislation—Dr. R. H. Lewis, of Raleigh, Dr. Albert Anderson, of Raleigh, Dr. George G. Thomas, of Wilmington.

On publication—Dr. H. A. Royster, of Raleigh, Dr. R. L. Gibbon, of Charlotte.

Scientific work—Dr. T. S. McMullan, of Hertford, Dr. R. H. Bellamy, of Wilmington.

Finance—Dr. G. T. Sykes, of Grissom, Dr. I. Fearing, of Elizabeth City, Dr. Wil-

liam Jones, of High Point.

Obituary—Dr. C. A. Julian, of Thomasville, Dr. R. P. McFayden, of Randleman, Dr. J. W. McGhee, of Raleigh.

Delegates to the Mississippi Association—Dr. C. J. O. Laughinghouse, of Greenville, Dr. J. S. Rhodes, of Williamston, Dr. J. W. Hooper, of Wilmington, Dr. C. S. Jordan, of Asheville, Dr. J. R. McCracken, of Waynesville, Dr. W. H. Cobb, Jr., of Goldsboro.

Delegates to the Virginia Association—Dr. M. Bolton, of Rich Square, Dr. F. R. Harris, of Henderson, Dr. R. E. Lee, of Goldsboro, Dr. S. M. Mann, of Moyock, Dr. D. O. Dees, of Greensboro.

Delegates to the South Carolina Association—Dr. C. A. Patterson, of Mitchell county, Dr. W. H. Ward, of Plymouth, Dr. J. E. Ashcraft, of Monroe, Dr. J. D. Waldrop, of Hendersonville.

A committee was appointed to represent North Carolina in the revision of the United States Pharmacopœia, which will be revised next year. The committee appointed consists of Dr. W. L. Dunn, of Asheville, Dr. William Deb. McNider of the University of North Carolina medical faculty and Dr. E. J. Wood of Wilmington.

To say that the visiting doctors were well taken care of is to tell only half a truth. They were royally entertained as only Asheville knows how to entertain. Everything was done that could be to insure a pleasant stay. A good old-time barbecue was given at Overlook Park. A reception and dance at Battery Park Hotel, a reception and musicale at the splendid home of Dr. R. S. Carroll, drives, luncheons, &c., afforded a never ending series of pleasures. The visitors were frank in their expressions of appreciation of the manner in which their every comfort and desire was considered.

The next meeting will be held at Wrightsville, beginning on the third Tuesday of June, 1910.

THE PRESIDENT OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

It is with many pleasurable sensations that the Journal thus indulges in favorable emendations concerning him who now occupies the highest seat of honor in the gift of the Medical Society of the State of North Carolina. Dr. James A. Burroughs of Asheville, N. C., needs no introduction to the medical profession of this State, or indeed of the whole country. He is widely known and favorably known. That he will wear the honor conferred upon him worthily and dignify and grace the office he now occupies no one can deny. For many years a member of the State Society, having joined in 1889, he has persistently declined to permit his name to be offered for election to high office. The innate modesty and unselfishness of the man led him ever to prefer honor for his friends rather than for himself. Aside from having been made vice-president in 1896, he has received but one other office at the hands of the society—that position he still holds. We refer to his having been made a member of the North Carolina State Board of Health, an office which he accepted most reluctantly and indeed unwillingly. Dr. Burroughs has been a most faithful attendant upon society meetings, and a prolific contributor of numerous valuable papers on a great variety of medical subjects. Unfailingly answering the roll call, he is and has always been ready to engage enthusiastically in the discussions—business and scientific—which go to make up the round of society duties. Open hearted and honest he is one of the most genial gentlemen in the world, a pleasant companion and a friend worth having. A student of men and things he is unerring in his estimates, and to his influence and aid have been due the successful launching of many younger men on useful careers. A highly successful practitioner, he is at the same time a man who has preserved the attitude of the investigator. A close observer, his studies have resulted in the contribution of a large number of genuinely scientific articles which show a most comprehensive knowledge of things medical. Long familiar with society affairs, he will prove himself a thoroughly capable presiding officer; his honesty will render him fair and impartial in his rulings and his unfailing courtesy and geniality will recommend him to all. We would offer him our congratulations, our best wishes, and our support unstintedly.

HUMAN AND BOVINE TUBERCULOSIS.

The time honored controversy concerning the identity of human and bovine tuberculosis continues to afford a fruitful field for theorizing and experiment. The eminent discoverer of the tubercle bacillus, Robt. Koch, stands almost alone in his belief that the human and bovine bacillus respectively are essentially distinct. He maintains that the bovine bacillus cannot, except on the rarest occasions, produce the disease in man, and that, even when it does so, the disease is local and not progressive; the same being true of the human bacillus in its relation to the ox. Arrayed against Koch is practically the whole scientific world, yet such is the weight of authority which any pronouncement of Koch's carries with it, that, even after several years of searching investigation, the question seems

as unsettled as before. At the last great Congress on Tuberculosis which met at Washington, D. C., in 1908, the debate raged hotly, and after numerous attempts and a conference *de novo* a solution of the problem still remains a great way off.

Following the meeting of the International Congress on Tuberculosis in London in 1900 at which time Koch announced his famous dictum, the British Government appointed a Royal Commission to inquire and report (one) whether the disease in animals and man is one and the same; (two) whether animals and man can be reciprocally infected with it; (three) under what conditions, if at all, the transmission of the disease from animals to man takes place, and what are the circumstances favorable or unfavorable to such transmission. This commission has issued three interim reports —one very recently, and their findings are succinctly stated by *The Hospital* of Feb. 9. According to the reports, the bacilli associated with human tuberculosis fall into two categories. Of these, one—called the "human" type, because it occurs in the majority of human examples of the disease —produces limited non-progressive lesions in oxen, rabbits, pigs, and goats. But in guinea pigs, monkeys, and anthropoid apes it results in a generalized tuberculosis. To this "human" type therefore Koch's dictum applies. But in a large group of cases, including particularly the primary tuberculous lesions of cervical and abdominal glands, the causal bacillus is absolutely indistinguishable, both culturally and morphologically, from that habitually associated with bovine tuberculosis. This, therefore, is called the "bovine" type. Injected into bovines it produces a generalized tuberculosis identical, both clinically and pathologically, with that produced by the injection into these animals of bacilli of known bovine origin. In anthropoid apes bacilli of the "bovine" type, whether of human or of bovine origin, alike give rise to generalized, progressive, and rapidly fatal tuberculosis.

From this it is apparent that the first two of the questions set to the commission are conclusively answered. Although it is possible to distinguish a "bovine" and a "human" type among bacilli responsible for human tuberculosis, these two must be considered mere variants. For in cultures all gradations are met with between the two types, while the less virulent "human" type can, by passage through a series of calves, be converted into a strain capable of producing in bovines a generalized tuberculosis such as characterises the "bovine" bacillus proper. Thus one must say that the disease in man and animals *is* one and the same, and that man and animals *can* be reciprocally affected with it. The third and most recent interim report of the commission is concerned with some important aspects of the third question—that, namely, which deals with the conditions under which transmission from animals to man takes place, and the circumstances which are favorable to such transmission. Tuberculosis of the udder is fairly common in cows, and the milk of such cows always contains tubercle bacilli. But it was undecided whether tuberculous cows gave tuberculous milk in the absence of manifest lesions of the udder. Six cows were dealt with, five of which had normal udders, while that of the sixth was affected, but so slightly that the lesion could not be detected during life. Three of the cows were apparently healthy, the fact that they were tuberculous being demonstrated only by their reaction to tuberculin; while the other three showed definite clinical signs of the disease. The milk of those apparently healthy failed to cause tuberculosis when injected into guinea-pigs, while that of the three which showed clinical evidences of the disease produced tuberculosis, though not invariably. Thus infection of the udder is not a necessary element in the production of tuberculous milk by tuberculous cows. Moreover, the fæces of five out of the six animals were found to contain living and virulent tubercle bacilli capable of producing tuberculosis in guinea-pigs and swine. The bearing of this item is of the highest significance, in view of the indifferent cleansing to which the udders and adjoining parts of milch-cows are commonly subjected, and the ease with which milk may become contaminated by fæcal products unless the greatest care is observed. Further, since pigs may be made tuberculous by being fed with tuberculous milk, the practice of feeding pigs with the milk from ailing cows ceases to be justifiable, both from the hygienic and the economical point of view. Altogether, the Royal Commission has already earned the thanks of the public, and it is not likely that future protestations by the eminent discoverer of the tubercle bacillus will alter the general opinion that in this particular business he has been seriously mistaken.

ANTI-TYPHOID INOCULATION.

Inoculation against typhoid infection was first advocated and begun during the Boer war by Sir A. E. Wright, the famous promulgator of the Opsonic Theory. One of the most widespread of all diseases, it is not strange that typhoid fever should occupy so prominent a place in the minds of those who are hoping for such great things to come from anti-inoculations. Dr. J. F.

Siler, of the U. S. Army, in an instructive article published in the *Post Graduate* believes that antityphoid inoculations are beneficial in that immunity is conferred which greatly diminishes the liability to infection. The vaccine used in the U. S. Army is the same as that recommended by Wright: a broth culture of the bacillus typhosus which has been sterilized by heat. At present it seems to be considered best to use an old strain of the bacillus that has a low degree of virulence. This old strain is transferred to broth, and after 24 to 48 hours' growth, the culture is sterilized by heating for one hour at a temperature of 53 C. Experience has shown that this degree of heat is the death point of the typhoid bacillus, and cultures sterilized at this temperature rather than at 60° C. give much better protective results. It is probable that the action of the protective substance present in the culture, is impaired by the higher temperature. After the culture has been heated for one hour, it is tested to see that the bacilli are dead. After this, a small amount of antiseptic solution is added a 0.25 per cent. solution of lysol having been found sufficient to preserve the vaccine and prevent its becoming contaminated. The vaccine is then standardized by ascertaining the number of bacilli in a given quantity of vaccine. The dosage is: 500,000,000 for the first inoculation. The standardization is so carried out that each 1 c.c. contains 1,000,000,000 dead germs. The first injection would therefore consist of .5 c c. of the vaccine. This is followed in ten days by the second injection consisting of 1 c.c.

There is both a local and general reaction, the local reaction consisting in a reddened, tender spot around the point of infection, which is usually not larger than the palm of the hand. The general reaction varies, but the most severe form is manifested by headache, loss of appetite, and occasionally herpes labialis, nausea, vomiting and transient albuminuria. It is the general opinion that the amount of protection acquired may be gauged by the amount of reaction; —the more marked the reaction, the greater the protection. Two injections should be given at an interval of ten days and if the reaction first and second injections is not noticeable, a third inoculation should be given after an interval of ten days. The symptoms all disappear, as a rule, within 12 hours, and for this reason the inoculation is best given about four o'clock in the afternoon. The points of injection are over the pectoral muscles or at the insertion of the deltoid.

Nothing definite is known as yet as to the duration of the immunity nor is it known in what way the immunity is produced. Very interesting theories have recently been advanced concerning the true nature of typhoid fever but our knowledge is still incomplete and far from exact However the facts stand out for themselves. Those who have employed the method and observed the results are confident that not only is the incidence of typhoid fever reduced by inoculation, but that the mortality rate in those who, after inoculation, do become infected, is distinctly lowered.

THE PRESIDENT'S ANNUAL ADDRESS

Elsewhere in this issue we publish the annual address of the president of the Medical Society of the State of North Carolina, Dr. J. H. Highsmith, and it is only proper that we direct the attention of our readers to it. Aside from his distinguished ability as a presiding officer—a position which he graced and honored in every way, Dr. Highsmigh has given yet another evidence of his eminent qualifications and has emphasized his right to a place among the leaders of his profession. The president's address shows a most comprehensive knowledge of the theme which was certainly most fittingly and appropriately chosen. Just at this time our State—and indeed the entire country—is awakening to a realization of the importance of improved hygienic conditions and the fact that prevention of disease is the keynote of modern progress. Already we are witnessing the effects of this awakening in the campaign against certain diseases, and in legislation regarding public health affairs. And in many other other ways do we perceive a proper realization of what Dr. Highsmith so eloquently emphasizes in his address. That our honored president is a student of health conditions could scarcely be denied after one has read the pages to which we refer.

Particular stress is laid by the writer on the necessity of educating the public along the lines of hygienic and sanitary problems. Medicine has made most wonderful strides during the past few decades in every field. Great progress has likewise been made in preventive medicine, but this particular branch has lagged behind, doubtless because of the seeming mystery which envelopes the medical profession and because of the neglect of any systematic attempts to instruct laymen concerning the essential reasons for fighting disease and disease-breeding conditions. The special plea of Dr. Highsmith is for just this—education. Education of individuals with the special view of fitting them to instruct the multitude. Instruct the people through every possible channel—the children in the

schools as well as the parents in the home. The importance of this is evident to the most casual observer when he looks about him and sees the utter disregard of the simplest and most fundamental rules of health in every class and condition of our people. It is all however a neglect which has its origin in ignorance for which doctors are largely responsible, at least they must be the first to attempt a remedy.

Laws are also essential. Public opinion must first be aroused in order that the laws may become possible. The two are mutually interdependent—the one being ineffective without the other. We would call attention especially to the excellent suggestions made by the president regarding the enactmet of certain laws. These, we believe, deserve the thoughtful consideration of every citizen in our State. The Journal is thoroughly in accord with Dr. Highsmith in believing that such laws are badly needed and that their enforcement would go a great way toward bringing preventive medicine to that plane of development to which it must be and will be brought within the next few decades.

Dr. Highsmith has delivered a message which is pregnant with good, and we believe that his words will bear fruit.

Editorial News Items.

Examination Questions Asked by the Board of Medical Examiners at Asheville, N. C., June, 1909.

MATERIA MEDICA.

By Dr. Benj. K. Hays, Oxford, N. C.

1. Name the organs influenced by (a) a cholagogue; (b) a sialogogue; (c) an oxytoxic; (d) a diaphoretic; (e) a mydriatic.
2. Give the official name, using the correct Latin terminations, of (a) Epsom salts, (b) Dover's powder; (c) Calomel; (d) Salol; (e) Fowler's solution; (f) Hoffman's anodyne; (g) Cod liver oil. (h) Sulphonal; (i) Aristol; (j) Spirit of Nitroglycerine.
3. Define a tincture. Name four of the most important official tinctures and state per cent strength of each.
4. Give the dose of a (a) pomorphinae hydrochloridum; (b) Arseni trioxidum; (c) Chloralum hydratum; (d) Atropinae sulphas; (e) Hydrargyri chloridum corrosivum; (f) Strychninae sulphas; (g) Hexamethylenamia; (h) Tinctura aconiti; (i) Tinctura gelsemii; (j) Glandulae suprarenalis sicca.
5. Give specific treatment for diphtheria, and state very briefly how the remedy is obtained.
6. Give specific remedy for myxodema.
7. Write a prescription for dysentery.
8. Name four drugs which might be useful as local applications in tonsilitis. (Official remedies only.)
9. Name five agents (not official drugs) which frequently cause poisoning.
10. Give specific antidote for poisoning by (a) Bichloride of Mercury; (b) Arsenic; (c) Iodine; (d) Opium; (emetics, stomach pump, etc., being taken for granted).

CHEMISTRY AND DISEASES OF CHILDREN.

By Dr. John Rodman, Washington, N. C.

1. A patient is found with a temperature of 104 degrees Fahrenheit. Express this in Centigrade.
   (b) Express the equivalent of one grain (decimally) in grams.
2. Methyl alcohol, give (a) common name, (d) uses (e) dangers.
3. Define combustion, and state what takes place when coal is burned.
4. What is fractional distillation?
5. Name four mineral acids used in medicine and give formula of each.

1. Ophthalmia neonatorum, (a) Etiology and symptoms; (b) Crede method of prophylaxis; (c) Treatment, general, medicinal.
2. Describe Kernig's symptoms of cerebrospinal meningitis.
3. Give diagnosis and treatment of acute intussusception.
4. Describe the eruptions in (a) chicken pox; (b) small pox; (c) measles; (d) scarlet fever.
5. Give most common complication in scarlet fever and treatment of same.

OBSTETRICS AND GYNAECOLOGY.

By John Bynum, M. D., Winston-Salem, N. C.

1. Describe the uterus, its normal position its relationship to other organs, and means by which it is held in place.
2. Give symptoms and treatment of placenta previa.
3. What is plegmasia alba dolens? At what time does it occur? What is the treatment?
4. What are the danger signals of impending eclampsia? Give treatment of eclampsia at 8th month of pregnancy.
5. Define abortion, miscarriage, and premature labor. Give treatment of an incomplete abortion.
6. Give the etiology and treatment of an acute general cystitis.
7. Define plastic operations as applied to gynaecology.

8. What is the differential diagnosis between ascites and ovarian cyst.

PRACTICE OF MEDICINE.

By H. H. Dodson, M. D., Greensboro, N.C.

1. Give differential diagnosis between Peptic Ulcer and Carcinoma of stomach.
2. Give physical signs in Croupous Pneumonia—in the stage of solidification and differentiate from Pleurisy with effusion.
3. In Aortic and Mitral Insufficiency, where is the murmur heard most distinctly and its direction of transmission?
4. Give Etiology of Cerebro-Spinal Meningitis, (epidemic) and characteristic symptoms.
5. Define Arterio-Sclerosis, and give chief causes producing it.
6. Give symptoms of hemorrhage in Typhoid Fever and treatment.
7. What is the chief cause of Locomotor Ataxia? Give symptoms briefly in initial and ataxic stages.
8. What conditions are found in examination of urine, and circulation in chronic Interstitial Nephritis?
9. Give briefly treatment for Acute Articular Rheumatism.
10. Write one prescription for local treatment of Erysipelas.

SURGERY.

By L. B. McBrayer, M. D., Asheville.

1. What is pathology and treatment of paronychia?
2. What is pathology and treatment of osteomyelitis of tibia.
3. Describe operation for radical cure of oblique inguinal hernia.
4. Describe operation for acute catarrhal appendicitis.
5. How would you treat a patient who had suddenly ceased to breathe while administering chloroform?
6. Describe method of preparing hands for a surgical operation or obstetrical examination.
7. Why do we have abscess of the liver following purulent appendicitis?
8. What is the rule as to fixation of joints above and below a fracture?
9. How do you differentiate between chancre and chancroid? What is period of incubation for each treatment?
10. Describe operation for talipes equinovarus.
11. For the diagnosis of what disease is the Wasserman reaction used?

(You are expected to answer only 10 questions.)

PHYSIOLOGY AND HYGIENE.

By J. L. Nicholson, M. D., Richland, N. C.

1. What evidence is there that the secretion of urine is not a simple process of filtration from the blood? State the probable nature of the stimulation controlling the secretion of urine.
2. Explain the structure and use of each of the three coats of blood vessels.
3. Name the principle centers of organic function situated in the medulla oblongata.
4. Give the teachings as to the (a) origin (b) functions (c) variations in number of leucocytes.
5. Five the functions of carbohydrate foods.
6. Discuss Enzymes: Giving (a) Their general character, (b) six principle ones, where chiefly found, and their respective actions in the process of digestion.
7. What is the significance of (a) nitrates and (b) nitrites found in drinking water?
8. Give the prophylaxis of uncinariasis.
9. Discuss municipal supervision of a city's milk supply.
10. Discuss the contamination of air in dwellings, consequent upon improper lighting, heating, and ventilation.

ANATOMY.

By W. W. McKenzie, M. D.

1. Name the bones of the head, and describe the frontal bone.
2. Where does abdominal aorta commence and where does it terminate? Name its branches.
3. Name the principal lobes of the brain and the fissures dividing them.
4. Give the origin and function of the trigeminus (5th cranial) nerve, and name the divisions of the same.
5. With what bones does the astragulus articulate.
6. Describe the stomach, give its average size, attachments, regional location, gross structure, blood and nerve supply.
7. Give origin, insertion, and action and nerve supply of the following muscles: Deltoid, Soleus, and Quadratus Lumborum.
8. Give the surgical anatomy of femoral hernia.
9. Locate and describe the ovaries.
10. Give a histologic description of an artery.
11. Describe the rectum.
12. Describe the Iris, give its blood and nerve supply.

(Answer only 10 questions.)

A. G. L. SURGEONS MEET.

The annual meeting of the Association of Atlantic Coast Line Railway Surgeons was

held at Wrightsville, N. C., beginning June 8th, continuing through the 9th. Half a hundred members were in attendance and the sessions were characterized by great enthusiasm. The membership of this body is composed of those who stand highest in the ranks of the profession throughout the territory covered by this great railway system. The meeting was opened with prayer by Bishop Robert Strange, after which the address of welcome was delivered by Mayor Walter G. MacRae, response being made by the president, Dr. J. H. McIntosh, of Columbia, S. C. A large number of highly interesting scientific papers were presented and discussed. Mr. Geo. B. Elliott, assistant general counsel of the Atlantic Coast Line, spoke on the relation between the relief (Surgical) and legal departments of the railroad. His address was heard with the closest attention. The Tidewater Power Company entertained the visitors at Lumina, the spectular amusement pavilion at Wrightsville. At this place also Mrs. Geo. G. Thomas, wife of the Chief Surgeon of the System, entertained the visiting surgeons and their wives at an informal reception.

The Chattanooga and Hamilton County (Tenn.) Medical Society, on June 4, held a most interesting meeting. Dr. E. G. Ballenger, of Atlanta, the guest of the Society, read a valuable paper which was enthusiastically received. A number of unique cases were reported. Several new members were elected, as follows; Dr. H. L. Faucher, Dr. H. C. Smith, Jr., Dr. E. Bunbar Newell, all of Chattanooga.

After the meeting adjourned the members went to the residence of Dr. James Atlee on Oak street, where an informal reception was held for Dr. Ballenger.

North Carolina Medical Examiners.

The State Board of Medical Examiners which met in Asheville, June 9, completed its work and announced the successful candidates before the State Medical Society June 15. There were a total of 120 applicants of whom 96 were granted license. Included in this number were one woman and eight negroes. The class was led by Branch Craig, of Salisbury, who made an average grade of 95 6-7, with Hubert Benberry Haywood, Jr., of Raleigh, only one seventh of a point below him, making a grade of 95 5-7. Hubert Gudger, of Asheville, came third with a grade of 93 5-7. The successful applicants were:

William A. Johnson, Reidsville.
Vernon L. Andrews, Mount Gilead.
Joseph Collier Ray, Raleigh.
David Russel Dixon, Rocky Mount.
Fred G. Sigmon, Spencer.
Thomas W. Long, Garysburg.
N. D. Morton, Jr., Bullock.
O. E. Underwood, Ernest.
Julian B. Sutton, Elk Park.
J. Frank Cranford, Davidson College.
C. M. Lentz, Albemarle.
H. P. Harris, Wake Forest.
Charles R. Rullel, Granite Falts.
Thomos J. Tudor, Mount Gilead.
K. C. Moore, Wilson.
G. D. Moose, Mt. Pleasant,
Edward C. Register, Jr., Georgetown, S. C.
J. C. Knight, Clarksville, Ga.
E. B. Alford, Greensboro.
R. W. Crawford, Rocky Mount.
R. A. Vaughn, Vaughn.
W. B. Chapin, Pittsboro.
B. B. Lloyd, Chapel Hill.
W. A. Whitfield (colored), Stokes.
P. W. Miles, Milton.
R. G. Rosser, Broadway.
J. M. McMillan, Star.
J. N. Hill, Murphy.
W. C. Morrow, Andrews.
C. A. Shore, Raleigh.
T. D. Crouch, Taylorsville.
N. B. Adams, Murphy.
Bessie Violet Puett, Dallas.
H. B. Haywood, Jr., Raleigh.
C. F. Shafer, Boonesville.
W. F. Cole, Rockingham.
Thos. O. Coppedge, Castalia.
Wm. C. Tate, Saginaw.
Julian C. Davis, Clyde.
D. C. Absher, Obids.
Fred B. Spencer, Swan Quarter.
L. C. Swindell, Kinston.
Reuben G. Tuttle, King.
B. C. Johnson, Ingold.
Claudius T. Poole, Ellerbe.
Benj. E. Early, Taylorsville.
Asa Thurston, Taylorsville.
G. H. Croom, Burgaw.
James J. Withers, Davidson College.
L. V. Dunlap, Ansonville.
John M. Maness, Rockfngham.
Foy Roberson, Chapel Hill.
John M. Thompson, Graham.
Julius B. Surles, Dunn.
W. H. Braddy, Washington.
J. D. Barnes (colored), Portsmouth, Virginia.
M. W. Ball, LaGrange.
John Thomas Buff, Caser.
C. S. Barker, Trenton.
James A. Tinsley (colored), Henderson.
James L. Morefield, Guilford College.
S. H. Yokely, Thomasville.
Robert S. McElwee, Statesville.
O. B. Ross, Charlotte.
J. V. Howard, Kinston.

Edgar M. Long, Hamilton.
Ben F. Royal, Morehead City.
Hugh W. McCain, Waxhaw.
J. E. Dowdy, Winston-Salem.
Benj. F. Cliff, Asheville.
James A. Battle, Wilson.
John T. Wortham (colored), Raleigh.
W. P. Carter (colored), Reidsville.
William J. H. Booker (colored), Oxford.
Harold H. Cauble, Salisbury.
D. Humphrey, Lumberton.
James W. Vernon, Bushy Fork.
O. W. Shellem, Raleigh.
C. V. Orr, Judson.
J. D. Weatherly, Kernersville.
B. W. Page, Teacheys.
E. F. Long, Tobaccoville.
M. S. Gilliam (colored), Rocky Mount.
Fred Wharton Rankin, Mooresville.
Arthur Edward Riggsbee, Durham.
J. M. Buckner, Democrat.
Branch Craige, Salisbury.
Edward T. Gordon (colored), Raleigh.
A. W. Choate, Sparta.
Hubert Gudger, Asheville.
W. J. Coleman (colored), Raleigh.
Wm. A. Strowd, Chapel Hill.
M. T. Hickman, Hudson.
Walter Lee Swindell, Kinston.
Charles S. Eagles, Saratoga.
Charles R. Farmer, Elm City.
P. B. Killian, Hayesville.

Change in Medical Faculty.

At the annual meeting of the faculty of the University College of Medicine Richmond, Va., held June 1st, several important changes in the faculty were announced. After a service of several years, Dr. Paulus A. Irving declined re-election as dean of the department of medicine, and Dr. A. L. Gray, professor of physiology, was chosen to succeed him. In the department of dentistry there was a change of similar character. Dr. L. M. Cowardin, who has filled the post for some time, retired, and his place as dean will be taken by Dr. W. H. O. McGehee.

Other changes and additions that appear in the faculty list for next year are as follows:

Lecturer on Materia Medica and Therapeutics, Dr. Paul W. Howle.

Lecturer on Clinical Diagnosis, Dr. E. G. Hopkins.

Instructor in Obstetrics, Dr. R. T. Ferguson.

Instructor in Pediatrics, Dr. F. G. Simmons.

Instructor in Clinical Diagnosis, Dr. Charles M. Edwards.

Assistant to Chair of Clinical Medicine, Dr. C. H. Lewis.

Bedside Instructor in Surgery, Dr. Paul W. Howle.

Clinical Assistant to the Chair of Division of the Ear, Throat and Nose, Dr. W. B. Hopkins.

Clinical Assistant to the Chair of Diseases of the Eye, Dr. W. W. Gill.

There were no changes in the important chairs. Dr. Roshier W. Miller was re-elected dean of the department of pharmacy.

Doctor Sold Cocaine.

Dr. J. E. W. Haile, a practicing physician of Rock Hill, S. C., who was recently indicted for selling cocaine, plead guilty to the charge and was sentenced to pay a fine of $50.

The witness was a Lancaster negro, who had ordered the cocaine by mail, Dr. Haile filling the order. The cocaine sent the negro was found on his person when taken in custody by the officer at Lancaster.

Dr. Haile moved to Rock Hill from Kershaw about a year ago.

Dr. Herman J. Fiest of Nashville, Tenn., who was charged with the murder of Mrs. Rosa Mangrum, was given a verdict of not guilty in the criminal court on June 10th. Dr. Fiest was at first convicted of the murder in the criminal court, and sentenced to be hanged, but the case was appealed to the supreme court, which body reversed the finding of the lower court, deciding that the state had not established a corpus delicti. The case came back to the criminal court with the above result.

The semi-annual convention of the Third Congressional Medical Association of Georgia met in Americus, June 16th. Physicians from every town in that immediate section were present. The program included many addresses and papers upon interesting topics.

Report of the Board of Medical Examiners of the State of North Carolina. Session of 1909. Asheville, N. C.

Dr. B. K. Hays, of Oxford, N. C., Secretary of the Board of Medical Examiners of North Carolina, has been kind enough to send the following report:

There were 143 registrations
13 obtained reciprocity
14 obtained limited license
1 withdrew
18 were rejected
97 passed a successful examination.

College Standing.

Name of College	Passed	Rejected
Columbus University	1	
Univ. Col. of Medicine Richmond	14	
Tennessee Med.	1	1
Atlanta School of Med.	5	
Univ. of N. C.	12	1
Leonard Med. College	9	3
Jefferson	8	
North Carolina Medical	14	
Univ. of Nashville	0	2
Johns Hopkins	2	
Chat. Med.	0	3
P. & S., Baltimore	1	
Gate City Med. Tex.	0	1
Geo. Washington Univ.	1	
Univ. of Tenn.	0	4
Univ. of Md.	12	1 (1904)
Meharry	0	1
Univ. of Pa.	4	
Baltimore Med.	1	
Univ. of Louisville	1	
University of Georgia	1	1
University of South	2	2
Womans Med., Baltimore	1	
Med. College of Virginia	3	
Univ. of Michigan	1	
P. & S. Atlanta	2	
Knoxville Med.	0	2

MINUTES FOR THE MEETING OF 1909.

The Board of Medical Examiners of the State of North Carolina met in regular session at the Battery Park Hotel in Asheville on the night of June 8th, 1909, with the following members present: Dr. L. B. McBrayer, Asheville; Dr. W. W. McKenzie, Salisbury; Dr. H. H. Dodson, Greensboro; Dr. John Bynum, Winston-Salem; Dr. E. L. Nicholson, Richlands; and Dr. Benj. K. Hays, Sec. and Treas., Oxford. Dr. Jno. C. Rodman, President, was detained at home on account of sickness. Dr. J. L. Nicholson was elected President of the Board, pro tem., and served throughout the entire meeting.

Dr. L. B. McBrayer made a short talk of welcome, extending to the Board the courtesies of the city, and inviting the members to take a drive through Biltmore (at a time to be appointed).

It was decided to devote Wednesday morning to registration of applicants; Wednesday afternoon to a consideration of the claims of the applicants for limited license; and Wednesday night to the applicants for reciprocity. It was decided that Dr. Dodman's examination on Diseases of Children and Chemistry should be divided between Drs. Hays and Dodson, the former taking Chemistry and the latter Children. The following order of examinations was agreed upon, all examinations to be written except the practical part of Dr. Bynum's examination upon Obstetrics.

Anatomy, Thursday a. m.
Surgery, " p. m.
Gynecology, Friday a. m.
Materia Medica and Chemistry, Friday p. m.
Physiology, Saturday a. m.
Practice of Med. and Diseases of Children, Saturday p. m.

This was later modified by putting up Materia Medica, Chemistry and Diseases of Children together on Friday p. m.

Applicants for limited license were granted an oral examination. Reciprocity was granted in one case on the ground of having done five years successful practice in a State whose requirements are the same as ours. In every other case reciprocity was granted upon individual merit. The rules of the Board in regard to reciprocity were changed, and will be published later.

Dr. J. L. Nicholson was elected President of the Board for the coming year.

There was a feeling on the part of the Board that the applicants were of a high order of serious minded men who will become a valuable acquisition to the medical profession of North Carolina.

The Chattahoochee Valley Medical Association to Meet in Lafayette, Ala., July 13th and 14th.

The following program has been arranged for the sixth semi-annual meeting of the Chattahoochee Valley Medical and Surgical Association, which is to be held in the Knights of Pythias Hall, in Lafayette, Ala., July 13 and 14.

FIRST DAY—MORNING SESSION.

Association called to order at 10 a. m.
Invocation by Dr. W. C. Bledsoe.
Address of welcome on behalf of the city of Lafayette, by Hon. J. Hines.
APdress of welcome on behalf of Chambers County Medical by Dr. G. A. Pate, Milltown.
Respogse on behalf of Chattahoochee Valley Medical and Surgical Association, by Dr. J. G. Palmer, Opelika.

AFTERNON SESSION, 2 P. M.

"Appendicitis," by H. T. Hamner, M. D., Camp Hill. Leaders in discussion, J. A. Goggans, W. L. Cooke and R. S. Hill.

Diabetes," by C. S. Yarbrough, M. D. Auburn. Leaders in discussion, Velpean Langley, H. B. Disharoom and W. B. Gaines.

"Insects as Conveyors of Disease," by B. R. Rea, M. D., Lafayette. Leaders in discussion, C. A. Carey, J. H. McDuffie

and H. A. Slack.

"Infection and Immunity," by Velpeau Langley, M. D., Camp Hill. Leaders in discussion, Martin Crook, L. L. Hill and H. S. Bruce.

"Intersusseption, with report of a Case." by W. C. Cooke, M. D., Columbus, Ga. Leaders in discussion, Gaston Touance, J. M. Poer and L. L. Hill.

"Surgical Treatment of Diseases of Gall and Bladder and Ducts," by Gaston Torrence, M. D., Birmingham. Leaders in discussion, H. T. Hamner, W. J. Love and J. A. Goggans.

"Diagnosis of Pneumonia" by J. E. Jarrell M. D., Notasulga. Leaders in discussion, A. B. Bennett, J. P. Motley and J. H. McDuffie.

"Thirty Years Observation of Therapeutic Effects of Ceratrum Veride," by Thomas Northern, M. D., Lineville. Leaders in discussion, J. S. Horsley, J. J. Horsely, J. J. Winn and C. L. Williams.

"Therapeutic Suggestions," by G. A. Creer, M. D., Eclectic. Leaders in discussion J. G. Palmer and O. S. Justice

"The Management of Smallpox from a Rural Health Officer's Standpoint," by O. S. Justice, M. D., Central. Leaders in discussion, Martin Crook, W. H. Moon and A. H. Read.

"The Importance of Home Sanitation," by Dr. C. A. Carey, Professor of Veterinary Science, Auburn. Leaders in discussion, J. H. McDuffie, A. B. Bennett and O. V. Langley.

"The Duty of the Doctor to the Public," by J. G. Palmer, M. D. Opelika. Leaders in discussion, T. E. Mitchell, J. J. Winn and H. B. Disharoom.

SECOND DAY, 8 A. M.

"Diagnosis of Breast Tumors," by J. P. Watkins, M. D., Opelika. Leaders in discussion, W. D. Gains, Gaeton Torrance, H. S. Bruce and R. S. Hill.

"Reverse Peristalsis," by T. H. Haralson, M. D., Cussetta Leaders in discussion, A. B. Bennett, J. P. Watkins and W. L. Cooke.

"Abortion," by J. S. Horsely, M. D., West Point, Ga. Leaders in discussion, J. H. McDuffie J. G. Palmer and W. P. Dickinson.

"Pellagra," by H. F. Harris, M. D., Atlanta. Leaders in discussion, J. M. Poer, J. H. McDuffie and H. R. Slack.

"The Duties of the Obstetrician to his Patient," by J. H. McDuffie, M. D., Columbus, Ga. Leaders in discussion, J. S. Horsley, J. G. Palmer and A. B. Bennett.

"Labor and its Proper Management" by A. B. Bennett, M. D., Opelika Leaders in discussion, C. S. Yarbrough, G. T. Grady and J. M. Poer.

"Renal Caculi," by H. B. Disharoom, M. D. Roanoke. Leaders in discussion, H. R. Slack and J. S. Horseley.

"Intrar Capsular Fracture of Hip Joint," by A. D. McClain, M. D., Salem. Leaders in discussion, W. L. Cooke, J. G. Coggans and W. D. Gaines.

"Anesthesia," by E. T. Green, M. D., Hickory Flat. Leaders in discussion, H. S. Bruce and J. M. Anderson.

"Surgical Assistance," by H. A. Milford, M. D., Five Points. Leaders in discussion, W. D. Gaines, H. S. Hamner and W. T. Langley.

Dr. J. A. Estopinal, secretary of the State Board of Health of Louisiana, has resigned his position as secretary, and has accepted the position recently created by that board, as special medical inspector in Havana, Cuba.

Dr. Edward S. Kelly of New Orleans, and a graduate of Tulane University, was appointed to succeed Dr. Estopinal as secretary of the board. He took charge of his new work June the 1st.

At a called meeting of the Wake County Medical Society on May 27th, Dr. W. A. Goodwin of Raleigh, N. C., was suspended from the society for a period of six months for malpractice. From this action Dr. Goodwin has the privilege of appeal to the State Medical Society.

Gov. Noel of Louisiana has appointed Dr. L. W. Cooper of Newton, La., member of the State Board of Health from the Fifth District to succeed Dr. W. W. Hickman, who has resigned.

The twenty fifth session of the Southside Virginia Medical Association was held in Petersburg Va., June 8th, in the Chamber of Commerce Hall.

This association comprises the counties of Sussex, Surry, Southampton, Prince George, Brunswick, Greensville, Dinwiddie and the city of Petersburg. Among the speakers were Dr. R. A. Martin, Petersburg; Dr. T. W. Murrell, Richmond; Dr. R. L. Rexford, Conley; Dr. E. L. McGill, Petersburg; Dr. A. J. Osborne, Lawrenceville; Dr. J. W. Baird, Carsley; Dr. C. M. Hazel, Bon Air; Dr. Lucius Lofton, Emporia; Dr. Robert C. Bryan, Richmond; Dr. A. R. Shands, Washington, D. C.; Dr. J. Bolling Jones, Petersburg; Dr. Ennion G. Williams, Richmond; Dr. Wm. F. Drewry, Petersburg.

The graduating exercises of the Training School for Nurses conducted by the Presby-

terian Hospital of Charlotte, N. C., was held in the auditorium of the Presbyterian College on the evening of June 1st. Dr. A. A. McGeachy, pastor of the Second Presbyterian church, delivered the address of the evening, which was enjoyed by a large and representative audience of Charlotte people.

The members of the graduating class were: Misses Julia Ann Jennings, Harriet Louise Cornelius, Ina Saunders, Adelle Jones Lemmond, Ada Beatrice Gray, Mabel Leon McIntosh and Francis Royall.

After twenty-three years of service as a member of the visiting staff of the City Home, at Richmond, Va., Dr. J. G. Trevilian resigned as a member of that board on June 19th. Dr. Trevilian has made arrangements for a trip to Europe, and will sail some time in July.

Physician Wanted.

We understand that there is a good location for a young physician at Roaring River, N. C. We also understand that the people in that locality are very anxious to have some good physician locate there.

Nineteen candidates applied for license under the reciprocity rule. Of these twelve were granted license to practice medicine in North Carolina. They are as follows: Dr. J. A. Anderson, of McAdensville; Dr. M. J. Costello, of Philadelphia; Dr. A. F. Reeves, of Asheville; Dr. M. W. Maer, of Dorchester, Mass.; Dr. L. C. Lowder, of Asheville; Dr. J. R. Ely, of Tryon; Dr. E. E. Stewart, of Wake Forest; Dr. Jno. D. Nichols, of Etowah, Tenn.; Dr. James Washington, of Boardman; Dr. R. A. Powell, of Caroleen; Dr. D. W. Colby, of Dillsboro.

All of the officers of the Tennessee State Board of Medical Examiners were re-elected for a term of three years at the session of the board which was held in Nashville, June 1st. The officers of the board are: Dr. E. E. Hunter, Elizabethton, president; Dr. W. H. Halbert, Nashville, vice-president, and Dr. C. A. Abernathy, Pulaski, secretary and treasurer.

Through settlement of the contest over the will of the late Frederick Hewitt, of Owego, N. Y., the New York Post Graduate Medical School and Hospital, will receive the major portion of its $2,000,000 bequest, and large improvement and building plans are being considered.

Dr. Dewey Honored.

At the meeting of the American Medico-Psychological Society held, June 2nd, at Atlantic City, Dr. William F. Dewey of Petersburg, Va., was chosen president for the ensuing year. This is an honor that is well deserved by one of the most distinguished alienists in the country. Dr. Dewey is still a young man, but his reputation is by no means local.

One of the most successful meetings of the Orangeburg County Medical Association, since its organization, was held in St. Matthews, S. C., on June 15th. Excellent papers were read by Drs. T. H. Dreher, L. C. Shecut and T. H. Symmes, each of which were thoroughly discussed by the members present.

Dr. and Mrs. Robert W. Gibbes left their home in Columbia, S. C., on June 29th, for New York, whence they will sail shortly for Europe. They will be away all summer.

In the Superior Court at Wadesboro, N. C., June 12th, the jury brought in a verdict for the defendants in the suit in which Mrs. Reddie B. Kirker asked damages of ten thousand dollars from Drs. R. Armfield and H. M. Brooks, of Union county, N. C. Mrs. Kirker charged malpractice on the part of the physicians. The trial occupied the entire week.

Drs. Armfield and Brooks are two of the best known and capable physicians of that section of the county, consequently we are not surprised at the verdict.

Marriages.

Dr. Wm. H. Hilliard of Asheville, N. C., and Mrs. H. M. Colby, of New York, N. Y., were married in Greensboro, N. C., June the 1st. The ceremony took place in the parlor of Hotel Guilford, and was performed by Rev. S. H. Hilliard of High Point, N. C., a brother of the groom.

Dr. Hilliard is a graduate of Jefferson Medical College, Philadelphia, Pa., and is a very prominent physician of Asheville.

Dr. Michel Morvant of Jeanerette, La., and Miss Lizzie Dimitry, of New Iberia, La., were married in the Catholic Church in New Iberia on June 2nd.

Dr. Morvant recently graduated from Tulane University of Louisiana, and has commenced the practice of medicine in Jeanerette, his native city, where he will make his home with his bride.

Dr. Claude N. Smith of Clinton, N. C., and Miss Dora H. Tew also of North Carolina were married in Richmond, Va., June 17th.

Dr. J. P. Young, a prominent physician of Richburg, S. C., was married to Miss Constance Witherspoon of Lancaster, S. C., on June 23rd. The wedding took place at the home of the bride's brother, Mr. Marion Witherspoon, in Lancaster. Soon after the ceremony the bride and groom left for an extended bridal tour in the North. Upon their return they will make their future home in Richburg.

Dr. Young graduated from the University of Maryland School of Medicine in 1894.

Dr Mortimer Jordan and Miss Lucile Gaston, both of Birmingham, Ala., were married June 9th, at the Highland Methodist Church in Birmingham.

Dr. Jordan graduated in medicine from Tulane University of Louisiana in 1907 and is now practicing his profession in Birmingham.

Dr. John Cooper, of Oakdale, Tenn., was married to Miss Bertha Moore, of Kingston, Tenn., on Friday, June 8th. They will make their home in Oakdale, where Dr. Cooper enjoys a large practice, and where he is surgeon for the Q. & C. Railroad.

Dr. James Percy Freeman.—The marriage of Dr. James Percy Freeman to Miss Clara Lee, both of Bridgeport, Ala., was celebrated on the evening of June 17th, at six o'clock, at the home os the bride's parents, Dr. and Mrs. E. L. Lee.

Dr. Joseph Davis Eby and Miss Julia Connally Rosser, both of Atlanta, Ga., were married at the home of the bride's parents on June the 23rd. The ceremony was performed by Rev. J. A. Rosser, the bride's grandfather, assisted by Bishop W. A. Candler, and Dr. Jno. F. Purser.

Dr. Lewellyn Powell and Miss Ruth Ashton, both of Alexandria, Va., were married at Christ Episcopal Church in that city on June 15th.

Dr. Powell graduated from the Medical Department of the Columbian University, Washington, D. C., in 1904, and since that time has been practicing his profession in Alexandria.

Dr. Joseph Brown Farrior, of Careyville, Fla., and Miss Evelyn Gray Searcy, daughter of Dr. James T. Searcy, of Tuscaloosa, Ala., were married at the home of the bride on June 14th.

The groom is a son of Dr. and Mrs. Jos. Farrior, of Chipley, Fla. He was educated at the Southern University at Greensboro, Ala., and took his medical degree at Tulane University of Louisiana. He is a gentleman of much worth and has many friends.

Dr. Leonard Cripliver and Miss Dell Grimes, both of Lexington, N. C., were married at the Methodist church there on June 9th. Immediately after the ceremony a reception was given the bridal party at the home of the bride. Dr. and Mrs. Cripliver left after the reception for an extended bridal tour.

Dr. Robert Ormond Apple and Miss Evelyn Courtney Owens, both of Winston-Salem, N. C., were married June 17th. The ceremony was performed in St. Paul's Episcopal church of that city. Dr. Apple is one of the most popular young men of that city, and has succeeded in building for himself an extensive practice there.

Dr. J. H. T. McPherson of Athens, Ga., and Miss Margaret Claudius Bonney of Norfolk, Va., were married June 22nd, at the home of the bride's sister, Mrs. W. V. Davis in Savannah, Ga.

Dr. A. Hodge Newell and Miss Janet Elizabeth Hayes, both of Louisburg, N. C., were married in the Episcopal Church there, on June 3rd.

Dr. N. C. Hunter and Miss Carrie Jones, both of Rockingham, N. C., were married in the Methodist Church in Rockingham, on June the 9th.

Dr. Hunter was originally from Halifax county, N. C., but went to Rockingham several years ago to practice medicine, where he has met with great success, and is now one of the best doctors in that section of the State.

Dr. A. M. Marchant, of Fredericksburg, Va., and Miss Mary Ruth Shackelford, of Mathews county, Va., were married in Central church at Mathews court house, on June 21st.

Dr. James E. Norman of Trenton, Tex., and Miss Stevie Countiss of Tuscaloosa county, Ala., were married June 8th, at the home of the bride's parents. They will make their home in Trenton, where Dr. Norman holds the position of surgeon of the M. K. & T. Railroad.

Dr Alexander B. Moore, of Fauquier county, Va., a graduate of the Medical School of the University of Virginia, and Miss Carolyn Bell Watson of Falls Church, Va., a recent graduated from the University Training School for Nurses were married on Saturday afternoon, June 19th.

Dr. K. N. Lee and Miss Cordelia Thomas, both of Chattanooga, Tenn., were married June 22nd at the Church of Christ in South Chattanooga.

Dr. Lee is a graduate of the University of Chattanooga, and is well known in Chattanooga, both in business and social circles.

Dr. Arthur Grayson Vaden of Mathews, Va., and Miss Mabel Lee Anderton of Saluda, Va., were married at the bride's home on June 2nd.

The groom is a graduate of the University College of Medicine, Richmond, Va., class of 1895.

Dr. Thomas L. James, who is surgeon at the Battle Creek Coal & Coke Co., at Orme, Tenn., and Miss Elizabeth Mulcke of that city, were married at the home of the bride's parents on June 24th.

Dr. Percy Wade Olive, a prominent young physician of Wake County, N. C., and Miss Sallie McDonald Williams of Wade, N. C., were married at the Presbyterian Church in Wade on June 18th.

Dr. Harry Clay Willis and Miss Alma Everine Lewis, both of Rome, Ga., were married at the home of the bride's parents on Tuesday, June 22nd.

Deaths.

Dr. E. J. Setz, who at one time was one of the most popular physicians of Georgia, died at his home in Marietta May 31. Dr. Setz was in his seventy-ninth year, and had been very feeble some time.

He graduated from the Medical College of Georgia in 1882.

Dr. Albert T. Ryall, an aged physician, died at his home near Shelbyville, Tenn., on June 19th. He was in the 70th year of his age, and had been unusually successful as a practitioner.

Dr. W. A. Reynolds, aged 52 years, a very prominent physician of Union Springs, Ala., died at Margaret's Hospital in Montgomery, Ala., on June, 19.

He was a graduate of the Medical Department of the University of Alabama, and had been very successful in the practice of his profession since he received his diploma from that institution in 1885.

Dr. William H. Whitehead of Rocky Mount, N. C., died in Raleigh June 25th, aged 59 years, his death being caused by paresis. The State has lost one of her best citizens and the medical profession an honored member. Dr. Whitehead has held many places of honor and trust as the following will show. He was at the time of his death, an honorary fellow of the State Medical Society. From 1890 to 1896 he was a member and president of the State Board of Medical Examiners, member State Board of Health 1901—1905 and vice president of the Medical Society of the State of North Carolina 1885, and also a member o' the Board of Directors of the Central Hospital for the Insane at Raleigh.

Dr. Whitehead was a graduate of the University of Maryland and passed the Examination for license before the Board of Examiners in 1885 since which time he had been engaged actively in the practice of his profession. During the early part of his professional life he lived in Baltimore. In 1892 he came to Rocky Mount where for years he was division surgeon and adjuster of damages for the Atlantic Coast Line Railway. He enjoyed a large and lucrative practice, was greatly loved by all with whom he came in contact and stood high in the esteem of his fellows.

Dr. Q. Kohnke of Covington, La., died June 27 of apoplexy while visiting a patient. Dr. Kohnke graduated from the medical department of Tulane University in 1890. He was prominent in the public affairs of New Orleans, where he resided and practiced after his graduation, serving as a member of the city council and subsequently as chief health officer of the city. He was one of the first to recognize the truth of the mosquito theory of the transmission of yellow fever, and his efforts to have the Council pass an ordinance requiring measures to eradicate the mosquito finally culminated in success.

During the prevalence of the fever his energy and zeal, though at the time not received in the proper spirit by the ignorant of the city, won for him a name as one of the foremost sanitarians of the United States, and he received calls to address assemblies in many parts of the country.

Dr. Kohnke held the position of chairman of the City Board of Health until 1006. Upon his retirement from office he moved to Covington and resided there until the time of his death. He had built up quite a large practice in that city. He was a member of the Progressive Union, the Board of Trade and of the Chess, Checkers and Whist Club; for many years he was a member of the Press Club, the Artists'

Association, the American Medical Association, the Louisiana State and Orleans Parish Medical Societies and recently he became a member of the Knights of Columbus.

Dr. Kolnke cared more for his profession, his pet theories, to the proving of which he devoted the best part of his life, and his schemes for the betterment of the welfare of the heath of his fellow citizens than he did for financial gain; devotion to his practice would have increased his increased his income much, but he preferred the welfare of his city to any pecuniary benefit to himself.

Dr. W. J. Jones died, June 27, at his home in Goldsboro, N. C., after many weeks of lingering illness. It is with great sorrow that we chronicle the passing of yet another honored member of the medical profession. Dr. Jones was a man who had served his country with distinguished ability both as citizen and physician. Graduating in medicine in 1858 from the University of New York he was among the oldest physicians in North Carolina. He became a member of the State Medical Society in 1860 and was at the time of his death an honorary fellow of that body. While he only once held high office in the Society, having been vice president in 1889, yet he was considered a man of the very highest abilities, an accomplished physician, a genial, popular gentleman, a fluent conversationalist and brilliant speaker.

Dr. A. M. Newman, of Meadville, Miss., was shot and instantly killed in a feud battle, June 14. His son, Dr. Lenox Newman, also received fatal wounds from which death resulted within a few hours. The difficulty grew out of political differences as a result of which Dr. A. M. Newman in April killed C. B. Pritchard. Trial resulted in the acquittal of Dr. Newman. Three other persons beside those above mentioned were victims at the same time.

Dr. Benjamin Lawton Wiggins vice chancellor of the University of the South, died June 14th.

Dr. Wm. D Hall of Montgomery, Ala., an alumnus, and until a year ago, a member of the medical faculty of that institution, has been appointed acting vice chancellor of the University of the South, temporarily filling the vacancy caused by the death of Dr. Wiggins. Dr. Wiggins permanent successor will be chosen later by the trustees of the University.

Dr Richard Benburg Creecy Lamb died in Elpaso, Tex., on June 22nd. Dr Lamb had been suffering with an attack of typhoid pneumonia, but was believed to be improving and was expected at his home in Elizabeth City, N. C., in a few days. He was 26 years old, and had been practicing medicine only a few years.

Dr. J. M Cunningham who had been in ill health for several months, and had subsequently been compelled to give up his practice, died at his home in Shelbyville, Tenn., on June 5th. Dr. Cunningham was a man who was widely known throughout his state, and his many friends will regret to learn of his death.

He graduated from the Medical Department of the University of Tennessee in 1888.

Dr. H. V. Westmoreland, one of the best known physicians of Greer, South Carolina, died on June 6th at Jefferson Medical Hospital, Philadelphia, where he went to be treated. Bright's disease was the cause of his death.

Dr. Westmoreland was the oldest practicing physician in that section of the country and was not only an eminent physician, but a good citizen, and did much in the building up of the town in which he lived.

He graduated from the Atlanta Medical College in 1869, after which he located in Greer for the practice of his profession, and where he made great success as a practitioner.

Review of Southern Medical Literature

New Orleans Medical and Surgical Journal, May, 1903.

Headache as a Symptom of Pregnancy and Pelvic Disorders.—Dr. C. H. Chaffney says that the dysmenorrhea, so often accompanying the earlier days of menstruation, is frequently associated with severe headache as well as backache. Change of environment, with judicious use of tonics, proper diet and purgation, cold hip bath and putting the patient to bed at the menstrual period, is very beneficial. It is very rarely necessary to subject this class of patients to a vaginal examination, which would serve very little purpose and probably make our patient worse. The menopause, be it artificial or natural, is one of the most distressing disturbances that we are called upon to treat. The hot flushes, palpitations of the heart and severe headaches, are symptoms which are very difficult to arrest, and very often run their course to be relieved only by time. Proper dieting, exercise, attention to the excretions, with the use of sulphate of strychnin in 1-30 gram doses every four hours. Extremely nervous and restless patients should

be given bromide in some form. The solution of bromide of strontium in 3½ dose every four hours. The use of ovarian extract in 3-grain doses three times a day is one of the few remedies that seems to benefit this condition. Whatever be our treatment, avoid as much as possible the use of opiates aud the coal-tar products, as these are an easily influenced class of patients.

Headaches Due to Functional and Organic Disturbanees of the Eye.—Dr. H. V. Blum believes that inflammations of any part of the eye, or growths in any part, is capable of producing headaches.

Inflammations of the eyelids, styes, and chalazia.

Inflammations of the iris and ciliary body, episclera and sclera, choroid and retina.

Inflammations of the optic nerves.

Glaucoma.

By far the most important of these organic diseases, because it is more often overlooked, is glaucoma. Glaucoma is a disease almost peculiar to hypermetropes. Myopes rarely have glaucoma. The frequency of this disease in the far-sighted eye is no doubt due to the fact that the eye is a small one. The cornea is small, the chamber is shallow, and the ciliary processes are large. There is a disproportion between the size of the lens and the front part of the eye.

The Treatment of Flat Foot.—Dr. E. S. Hatch draws the following conclusions:

1. In the treatment of any of the types of flat foot each case should be studied by itself, and a so-called shoemaker's arch or stock plate should never be used.

2. When a plate is found to be necessary in the treatment of a case it should be as tight as possible, and its use should be supplemented by exercises so that the patient can in time get along without it.

3. It is never wise to put a plate on a rigid flat foot.

4. It is of the utmost importance to have the patients wear shoes of a correct shape, namely those with a straight inside line, with a broad toe and a low square heel.

5. The military position of standing with the feet turned out and forming with each other an angle of sixty degrees should be strongly combatted, as the position is an unstable one and tends to prenation.

6. Patients should be taught to stand with the feet parallel and to walk with the toes forward.

Headaches of Organic and Constitutional Origin.—Dr. I. I. Lemann says that one of the commonest and best known causes of headache is disease of the kidneys. So common is it that we should never overlook the examination of the urine, even where the discovery of some reflex from eye, nose or pelvis may lead us to think we have discovered the probable cause. Renal headaches may be explained in several ways. They are probably for the most part toxic, that is uremic in nature, due to faulty elimination of waste products. They often occur as one of the early symptoms and constitute an important warning signal for the institution of a proper regimen. Indeed-chronic headache (without other discover, able cause) plus hypertrophy of the left ventricle (without intrinsic cardiac disease) plus accentuation of the second aortic sound plus stiffened arteries is quite sufficient to make a diagnosis of chronic nephritis even where we fail to find albumen or casts.

The Southern Practitioner, May, 1909.

Cancer of the Stomach.—Dr. C. P. M. Nabb emphasizes the following points:

First. In rectal feeding, we should arrange our enemata to get the greatest number of calories from the smallest number of the CC of enemata.

Second. The colon will not tolerate rough usage, and more than 300 CC. should never be thrown in with one enema.

Third. It takes not more than four to seven days for acetonemia to develop, if less than fifty grams of carbohydrates are taken into the system daily; therefore, 50 to 75 grams of starch and 15 to 30 grams of grape sugar dissolved in 300 CC water, or peptonized milk, must be given each six hours.

Fourth. The patient with pyloric stenosis suffers much from thirst, and not less than 1,500 CC of water in some form should be injected every day.

Fifth. That the addition of common salt makes all kinds of enemata much more absorbable by the large intestines.

The Treatment of Placenta Previa.—Dr. J. T. Altman believes that all methods of controlling the hemorrhage are temporary until the uterus is emptied.

The next indication, then, is to take the best steps to empty the uterus. It must be emptied through the abdomen or through the vagina. Abdominal Cæsarean section has a field in the treatment of placenta previa centralis, but it is extremely limited. The following conditions, which are not very frequent, call for this form of treatment, viz.: profuse hemorrhage, one or more attacks in an old primipara with a long, rather hard cervix, the canal still intact, and little or no dilatation not examined at all until all precautions are taken to prevent infection, preferably in a hospital and in the hands of a competent surgeon, the child living and heart sound

good. Such a clinical picture with the physical signs of a central attachment should by all means receive this form of form of treatment. Under all other conditions the author would prefer to empty the uterus *per vias naturales*. To accomplish this the cervix and lower segment must be dilated or incised according to the method of Duhrssen.

The American Practitioner and News, May, 1909.

Gun-Shot Wounds of the Abdomen with Special Reference to Injuries to the Alimentary Tract.—Dr. F. W. Sammuel points out that perforation of the intestine by gun-shot missiles are followed by extrusion of the mucus membranes, rosette-like in appearance. This effect is caused by the redundance of the mucus membrane and by spasm of the circular fibres. In some perforations it is not so noticeable. Wounds made by the bullet passing through the walls of the gut parallel to its long axis the mucus membrane is carried away and this effect does not occur. It is also absent in wounds of the stomach and large intestine. Wounds of the intestine do not bleed so freely, likewise the solid viscera. The most insignificant artery when severed, under the influence of intra-abdominal pressure, will bleed continuously, and the shock which is significant in all peritoneal wounds brings about the well-known fact of visceral engorgement, which consequently encourages hemorrhages.

The Conditions which Modify Operative Work.—Dr. A. D. Willmoth says that lesion of the mitral valve with a moderate myocarditis take anæsthetics well, other things being equal, while aortic lesions with advanced myocarditis should be looked on seriously. The surgeon should withhold his opinion until the kidneys have been carefully examined and the blood pressure taken, for in the first instance those with marked lesions that can be heard easily with little or no kidney complications make a good risk, and in those of more advanced kidney complications, if it is shown that the cardiac action and the volume of the pulse at the wrist are in direct relation to each other, we are safe in saying that the patient has a sufficient cardiac force to stand the extra strain that will be placed upon it in doing an operation of ordinary severity. If the heart's action is tumultuous and the pulse weak at the wrist such patients should be regarded as bad risk and operated on only as life-saving measures. The heart should be examined for regularity. Irregular pulse is far more serious, even though it be strong, than a regular pulse that is weak.

In chronic conditions a pulse rate of more than 120 should contra-indicate operative work, but in acute conditions, where the operation is little more than opening an abscess, a patient may be a good risk with a pulse of more than that rate. Patients with a normally slow pulse of say forty to fifty, if regular, make good risk.

All conditions of the heart that show incompetency should contra-indicate operation.

Virginia Medical Semi-Monthly, May 7th, 1909.

Personal Experiences in Prostatic Surgery.—Dr. R. C. Bryan calls attention to a complete prostatectomy as a radical cure for chronic, relapsing, gonorrheal prostatitis. In this instance the young man contracted gonorrhea ten years ago. Since then he has had innumerable outbursts characterized by severe discharge, frequent and painful urination and relapsing epididvunitis or epididymoorchitis. The prostate was moderately enlarged, boggy and painful. Massage expressed on each occasion, pus cells, gonococci and broken-down products. Sitz-tubs and rectal irrigations were religiously carried out at each eruption, until wearied with the frequency of the attacks and understanding that the source of infection was the prostate, though realizing the severity of the operation, he willingly subjected himself to any radical procedure which he thought stood a fair chance of bettering, probably curing, his trouble. On March 1st, by perineal section the prostate was most satisfactorily removed. The patient left the hospital at the end of the fifth week; the wound had entirely healed. Daily irrigations of a mild solution of permanganate of potassium have been carried out and, at present, there is absolutely no discharge, the patient retains his urine throughout the night and from four to five hours during the day, and has already gained much in weight and spirits. The focus of the infection having been removed, the writer believes this patient to be much better off than it would have been possible ever to have accouplished by medication, instrumentation or washings.

Intestinal Perforation in Typhoid Fever.—Dr. C. C. Tennant believes that the diaggosis should be based mainly upon the sudden sharp pain, followed by tenderness and rigidity, the latter being the most important, and seldom absent. Besides these, we may have more or less shock, fall of temperature, an increase in the pulse rate, or the patient may perspire, shiver, or

complain of feeling chilly and pass his urine involuntarily.

Should we have a typhoid patient who begins more or less suddenly to complain of pain or of an uneasy feeling in the lower abdomen and before long, whose abdomen becomes tender and rigid over the lower right quadrant, we would be justifiable in making the diagnosis of perforation, for, as Osler says, we must operate when we have a probable diagnosis: to wait till all the symptoms of perforation are established means to rob the patient of his chances for recovery.

Typhoid patients stand a laparotomy remarkably well, provided too much time is not taken, and in the few cases reported in which there were no perforations found, the patient has usually recovered.

Alabama Medical Journal, May, 1909.

The Sanatorium in its Application to Tuberculosis.—Dr. S. G. Bonney says that indigent patients with advanced disease undoubtedly represent the chief source of further bacillary distribution, and above all others should be subjected to rigid disciplinary supervision. They not only constitute an oppressive burden to their families, but through their inability to observe hygienic precautions become a constant menace to society. They are almost always denied admission to municipal hospitals. Tuberculosis sanatoria possessing facilities for their care are exceedingly few. Adequate accommodations should be provided in the form of segregation establishments where all possible comforts may be administered through judicious nursing and medical attehtion. Aside from humanitarian grounds it is precisely by virtue of their ignorance, destitution and occasional obstinacy that some form of institutional care is demanded. As to its practical beneficence for this group of patients there can surely be no room for difference of opinion.

Babies and the Pasteur Treatment.—Dr. E. M. Mason thus describes the symptoms:

In the dog, at the end of the period of incubation, the animal shows a change of disposition. He becomes morose, ill at ease, irritable and snappish. Often he seems to be in distress, and unable to remain quiet for any length of time. He is easily excited, but recognizes his master, obeys his command, and may even seem more affectionate than usual. The appetite fails, and soon the animal becomes more restless. He is constantly in motion, worries his chain, bedding, or anything else that may be in the kennel, and his bark changes in tone, acquiring a peculiar high pitched quality. As the disease progresses, the dog becomes more furious. Finally, he leaves home and may run for miles, biting anything that comes in his path, thus distributing the infection over a wide area. After a day or two, the animal returns home exhausted and covered with dirt and blood from his numerous encounters. He shows no fear of water in any stage of the disease, and drinks readily so long as he is able to swallow, but the progressive paralysis of the pharyngeal muscles soon make drinking impossible. The jaws droop open, the tongue hangs out and saliva exudes from the mouth. The dog may paw at his mouth, and this, together with his inability to swallow, may lead the owner to introduce his hand into the mouth in search of a bone in the throat. In a short time paralysis of the hind legs sets in, which soon becomes general and the animal dies paralytic. The course of the disease from the onset of the first symptoms is usually from two to five days, never more than ten days. It is extremely doubtful if recovery ever takes place.

The paralytic type of rabies occurs in about 15 per cent. of dogs infected with street virus. The onset is similar to that of the furious type, but the paralytic symptoms follow the premonitory without the intervening period of excitement, and the progress of the disease is more rapid. The animal shows no disposition to bite, and remains quiet. Paralysis occurs first in the throat and jaws, soon extending to the rest of the body. Death occurs in two or three days. This is the usual type of infection in laboratory animals and after inoculation with fixed virus.

In man alone is the disease properly called hydrophobia, for it is only in man that fear of water develops. This dread is not confined to water, but extends to anything that might cause an effort to swallow, and hence brings on a convulsion.

The Value of the Von Perquet Test for Tuberculosis.—Dr. J. S. Davis says as a diagnostic measure its greatest usefulness is seen in children, since almost all adults have latent foci, which would be thus revealed.

In clinically healthy or not very ill individuals its absence excludes tuberculosis.

It is absent in moribund and advanced cases. Its promptness and course are of prognostic value.

Positive reactions are of three kinds:

1. The "norma," which reaches its maximum in twenty-four hours and pales in two or three days.

This indicates early and favorably pro-

gressing tuberculosis, if the reaction is strong.

2. There is a *very early* and *ephemeral reaction*, which is often missed, as it fades quickly. This is very unfavorable.

3. There is the strong late reaction which appears in thirty-six hours, reaches a maximum slowly in two or three days and many persist several weeks.

This is often seen in cases clinically non-tuberculous and indicates in any case an ability of the body to resist. A battle is being fought and the victory may be in doubt. The stage of the disease offers few indications as to its progress. A mere incipient apicial catarrh may be more serious than an advanced case, which often this reaction may show.

The reactive capacity may be increased by favorable surroundings or decreased by unfavorable and thus indications as to the efficiency of treatment may be obtained.

The Etiology of Renal Sclerosis.—Dr. R. T. Styll says that as the arteries and arterioles in the brain are thin walled and deficient in elastic fibres, they are not very contractile, and on account of the stress and strain to which they are frequently subjected they are among the earliest of yield to atheromatous and calcareous degeneration. Hence the frequency of miliary aneurysms. The toxins of infectious diseases and other poisons find easy ingress to the nerve centres and, by their irritating properties, readily excite action therein which is transmitted in every direction, producing among other results both contraction and dilatation of the arterioles, which, if continued, will result in general arteriosclerosis.

The arterioles of the kidneys are very muscular and well supplied with vaso-motor nerves; consequently they are conspicuously under the control of nervous influences affecting both the vaso-motor constrictor and the vaso-dilator fibres, and are necessarily as a consequence of any abnormal condition in the centres presiding over these nerves in a constant state of alternate spasm and dilatation, which is obliged to eventuate in degeneration of the arteries and the organ dependent upon them for nutrition.

Brief Review of Alcohol.—Dr. B. C. Keister concludes by quoting the following:

First, we have now in the United States 3,640,000 hard drinkers of alcoholic beverages, 125,000 of whom die annually from the direct effects of alcohol; over 5,000 of these take their own lives.

Second, during the past four years alcohol killed more people in the United States than were killed by bullets during the four years of our Civil War. In 1907 there were 10,782 suicides in the United States.

Third, the use of alcohol as a beverage costs the United States annually $1,200,000,000.

Fourth, Seventy-four per cent. of crime, 75 per cent. of the pauperism and 5 per cent. of the insanity of the United States are caused by alcohol.

Fifth, seventy-five per cent. of the diseases of fashionable life are caused by alcoholic beverages.

Sixth, forty per cent. of all diseases of the liver and kidneys are caused by alcoholic drinks.

Seventh, sixty per cent. of the inmates of all reformatory schools are the descendants of parents or grandparents who were addicted to the use of alcohol.

Eighth, sixty per cent. of all the imbeciles and epileptics of the United States is caused by the hereditary effects of alcohol.

Ninth, in 1905 the amount of alcoholic beverages consumed in the United States was 1,694,392,765 gallons; 1,494,191,325 gallons were lager beer.

Tenth, in the year 1890 the liquor traffic paid the United States treasury $157,485,982. It cost the people of the United States, directly and indirectly, $1,884,027,982.

The late Mr. Gladstone made the emphatic statement that alcohol was a greater curse to any nation than war, famine and pestilence combined.

Notwithstanding this array of scientific facts and figures, our Federal and State governments continue to issue licenses for the sale of a poisonous beverage that is slowly, but surely, destroying our nation.

Medical Organization and its Benefits.—Dr. V. V. Anderson sums up as follows: By urging the great importance of the county medical society. As the family is recognized as a unit in its political, moral and social organization by society throughout the world; as the family is the foundation of the whole structure upon which modern civilization is built, so in our great scheme of medical organization, the home society is the unit upon which its super-structure rests. If the home or county organizations are weak, doing no practical work, filled with dissensions and jealousies, opposed to all plans for the more thorough organization of our profession, the elevation of its standards, and the noble purpose of the more perfect performance of its duty to the human race, then little can be expected from the district and State organizations.

The Southern Clinic, May, 1909.

Guaicol in Orchitis and Epididymitis.—Dr. John Meriweather says that guaicol

three or four drachms, menthol one drachm, glycerine two onnces makes a mixture that will be of great benefit in orchitis and epididymitis.

It relieves the pain, tenderness, and swelling in eight to twelve hours, and will do it better than opium or its derivatives. The swelling will gradually subside, and by the next day the patient will be feeling much better.

Treatment is commenced by an active cathartic to thoroughly clean out the bowels and rectum and the weight of the scrotum relieved by a suspensory bag. Hot fomentations are applied to the scrotum. The guaicol mixture is applied by saturating a piece of absorbent cotton with it and the whole scrotum lightly anointed every four hours until pain and tenderness subsides.

Texas Medical Journal, May, 1909.

The Anti-Tuberculosis Crasade and Phthisophobia.—Dr. T. Y. Hull believes that one of the most powerful agencies for the prevention of tuberculosis is compulsory registration. In cities where it has been carried out for some time it has proven a powerful agent in awakening the public mind, and of giving aid and instruction where it is needed. It is not intended to annoy and harass the sick, nor to make their burden more unbearable. It is not intended to hold the unfortunate victim up before the public, and does not. It is simply intended to give the Board of Health, and the Board of Health only, the knowledge of the existence of the disease, that in case the attending physician does not assume the responsibility of instructing his patient in preventive measures, it may do so. The results in other cities have been most beneficial. In these Southwestern cities to which so many tubercular people flook, and in which the mortality from tuberculosis is so appalling, some active measures are imperative. In this work of popularizing registration, the nurses and their association can render valunble assistance.

Gaillard's Southern Medicine, May, 1909.

Gastric Ulcer.—Dr. M. O. Burke says that a patient who has hemorrhage should be kept absolutely quiet for several days—at least one week. The bedpan should be used for evacuations of the bowels and urine. For twenty-four hours no food should be administered by the mouth, not even ice water. For twenty four or forty-eight hours no food should be administered at all unless the patient is very weak, and then only nutrient enemas should be given, such as solid peptonoids, alcohol and warm saline; or milk, yolk of egg, salt, flour. They should not be given oftener than every eight hours. Ice bags should be applied to the epigastrium. Drugs that often prove beneficial are ergot, adrenalin and chloride of calcium.

Second Week—Rest in bed; hot poultices to the epigastrium; warm milk; beef tea; liquid peptonoids; albumen.

Third Week—Morning and evening, while in the recumbent position, the patient should take a glass of alkaline mineral water; hot poultices should be applied to the stomach. The diet is the same as in the second week. If there is no tenderness or discomfort over the stomach the patient may sit up in bed at the end of the thirh week.

Fourth Week—The patient may be up in the room and about the house. The diet should be bland, such as mashed potatoes, purees of vegetables, tender, rare meats.

Atlanta Journal-Record of Medicine, May, 1909.

Whooping Cough.—Dr. S. A. Visouska believes that attention to diet is very important, as vomiting is often a persistent and at times an alarming condition. Nutritious, easily digested food should be given often and in small quantities, the best time to administer it being just before a paroxysm. For the vomiting Dr. W. T. Kilmer of New York has advocated the use of an abdominal belt made of linen with a strip of elastic webbing under each arm and fastened by lacing up the back. Besides the relief of the vomiting he claims that the number of paroxysms are reduced and complications rendered less frequent by this belt. An objection has been raised to the belt on the ground of its causing hernia. It is doubtful, however, if this is true. In connection with this the author states that last year he was called on to treat not less than six cases of umbilical hernia within a week, each case being the result of Pertussis. Some cases were already wearing different kinds of apparatus, but he used the Z. O. adhesive strips and all made good recoveries. The thought then occurred to him that this very troublesome complication might be prevented by the application of the strips (just as in hernia) during the convulsion stage; his idea being that it were better to wear these strips a few weeks than a few months.

Book Notices.

The Popes and Science. By James J. Walsh, M. D., Professor of the History of Medicine and of Nervous Diseases at Fordham University School of Medicine. Cloth, 423 pages. New York: Fordham University Press, 1908.

The writer wants to prove that the Roman Catholic Church, in the person of its Popes, has been misjudged by the general consensus of historical opinion, that the Romish Church has fostered Science as well as Art, and the Science of Medicine in particular. Dr. Walsh rather rashly takes issue with "The Warfare of Science with Theology," by Andrew D. White. Dr. Walsh's work is not without a certain interest but it somehow fails to carry conviction, as for instance in his first argument concerning Pope Boniface VIII's prohibition of dissection in 1300. He does not succeed in weakening Dr. White's position in favor of papal prohibition. It is significant also that he finds it necessary to go to such elaborate pains to discredit M. Daunou's contribution to the Benedictine "Histoire Litteraire de la France," a standard authority from which Dr. White quotes. The final quotation from Pope Benedict XIV (1740-1758) to prove that the decretal of Boniface VIII was not intended to forbid dissections seems too much like *ex parte* testimony to have much weight, though why a man living some four hundred years later should be authority does not appear.

Even the authorities he approves of do not come to the same conclusions that he does. Robert von Toply, in Puschmann's "Geschicte der Medizin," p. 214, Vol. II, says that, "Das klassische Objekt der mittelalterlichen Anatomie, das Schwein" played identically the same role in practical instruction from the beginning of the eleventh century until the end of the fourteenth and even into the sixteenth.

The book is strongly partisan, unnecessarily so. It has few resereuces to authorities, aside from those it seeks to discredit.

Writing the Short-Story. A practical handbook on the rise, structure, writing and sale of the modern short story. By J. Berg Esenwein, A. M., Lit. D., Editor of Lippincott's Monthly Magazine. Hinds, Noble & Eldredge, Publishers, 31 35 West Fifteenth St., New York City. Cloth. Price, $1.00 postpaid.

The author has made a most critical study of the short story which, as he says, is now the most popular literary form. After a historical introduction, the nature of the short-story and its structure are most carefully detailed. This part, which constitutes the bulk of the work, is abundantly illustrated with quotations from short-stories by the best authors. Part three deals with the preparation for authorship, including the methods of acquiring a vocabulary and the laboratory method of study of short-stories. Part four deals with the marketing of manuscripts, and several useful appendices coaclude the volume. The writer is eminently qualified to give advice upon this subject since his experience in passing upon the quality of manuscripts submitted to his publication has been very extensive. To any of our readers who contemplate an excursion into this literary field his treatise can be heartily recommended as an eminently satisfactory guide.

Miscellaneous.

Rare Observation of Acute Primary Latent Diphtheria of the Middle Ear.

Olimpio Cozzolino records a somewhat rare observation of primary diphtheria of the middle ear. There was no evidence of primary diphtheria of the nasopharynx, although the child had adenoid vegetation and hypertrophied tonsils during the course of the disease. It began with an acute otitis media which rendered paracentisis necessary. Through the opening of the drumhead was to be seen a grayish white membrane covering the structures of the middle ear. When removed with forceps this disclosed a bleeding base. Antitoxin was administered and relieved the general symptoms, but did not cause the disappearance of the membrane. The serum was then used by instillation into the middle ear, and the membrane promptly disappeared. The exudation from the throat showed no diphtheria bacilli; neither did the membrane removed from the middle ear. Still, the author considered that there were enough characteristic symptoms to show a true primary diphtheria of the middle ear.—La Pediatrica.

Experimental General Infection with Hepatic Localization.

Le Play reports the results of experiments relative to general infection by a vine parasite, called stearophora radicicola. The spores, when injected into the circulation, select the level of the liver, to the exclusion of other organs. Finding in this gland a hydro-carbonous medium, particularly favorable for development, one can see them appear, at the end of a few weeks, under the form of mycelium or in the state of selerots. This parasite gives rise to the

formation of acid and alcohol, and inflicts harm by its secretions to the hepatic parenchyma; both mechanically and chemically.

These experiments place in evidence the primordial importance of the soil in the evolution of pathological processes. It is thus that we can conceive how these processes can vary, not only from species to species, but, in the same animal, from organ to organ.—La Presse Medicale.

Diagnostic Importance of Examination of the Faeces for Tubercle Bacilli in Infants with Pulmonary Tuberculosis.

Nicolo Serio-Basile notes the difficulty of early diagnosis of tuberculosis, especially in children who do not cough and expectorate. The author has attempted to examine for the tubercle bacillus in the fæces of such infants in the hope of obtaining evidence of their presence in the lungs. He finds that in spite of the technical difficulties of such examination, important evidence of the presence of tuberculosis may be obtained from the feces. The bacilli may pass all the way through the intestinal canal without being altered morphologically or pathogenically. They appear in greater numbers when there is a lesion of the intestinal mucous membrane, and in smaller numbers when the lesion is in the respiratory apparatus. The tubercle bacilli may be absent in the fæces of infants who swallow the sputum from pulmonary lesions. This method of examination is of diagnostic value in positive cases, but as negative evidence against tuberculosis it is valueless.—La Pediatria.

Intestinal Obstruction Simulating Strangulated Hernia.—Clairmont (Archiv. f. Klin. Chir.) mentions certain cases of intestinal obstruction, in which owing to the simultaneous presence of an inguinal, femoral or umbilical hernia the condition may be mistaken for a strangulated rupture. In these cases the hernia may become painful tense or irreducible, although this condition is really secondary to the obstruction of the bowel. Hence, in such a case the surgeon contents himself with herotomy and fails to recognize the real cause of the trouble, the ileus will persist and lead to a fatal termination. That we have not to deal simply with a strangulated hernia is shown by the slight tension and tenderness of the hernial tumor in the early stages. Later, when the hernia appears to be incarcerated and an operation is performed, there may be other signs which point to intraabdominal complication, such as the absence of distinct strangulation, the distention of the afferent segment of gut, the impossibility of reduction or of drawing out the loop, the presence of circulatory disturbance; above the hernial aperture. If the symptoms of ileus persist more than twenty-four hours after the operation and reduction of an apparently strangulated hernia, there is reason to suspect a mechanical or paralytic obstruction of the bowel. The writer has seen ten of such cases and has collated ninety-five from the literature, which show that there may be a diversity of causes for the obstruction, such as incarceration of an internal hernia, strangulation of intestinal coil or of the entire small intestine, compression by bands, volvulus, invagination, benign or malignant stenosis, foreign bodies, or paralysis of the bowel from peritonitis, appendicitis or acute pancreatitis. The prognosis in all these cases is very unfavorable, the mortality being about 70 per cent.

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Tuberculosis in Children.—Sherman, in the London Medical Lancet, has reviewed 1,085 cases in the Royal Edinburgh Hospital for Sick Children of which 413 died from tuberculosis. These cases were examined in two series, the first containing 105 and the second containing 308 cases. The ages of the cases varied from three months to thirteen years, approximately 68 per cent. being under five years of age. The lymphatic glands were tuberculous in 97 cases (92.4 per cent.) in the first series and in 243 cases (78.8 per cent.) in the second series. The mediastinal glands were more frequently affected than the abdominal glands, and dissemination took place more frequently, apparently, from the former group. Tuberculosis of the mediastinal glands was commonly unaccompanied by primary tuberculosis of the lungs, but was frequently accompanied by recent tuberculosis of these organs, in many cases evidently secondary to the gland tuberculosis. In nearly half of the cases of tabes mesenterica there was no ulceration of the intestines and in one-third of the cases there was no excavation of the lungs, although in some of them the lungs showed early manifestion of tuberculosis. In a number of cases excavation of the lungs was not followed by ulceration of the intestines, although in about half such cases tabes mesenterica had resulted, the excavation being of some standing. Primary ulceration of the intestines, in absence of any previous excavation of the lungs, was frequently found. It was usually accompanied by caseation of lymphatic glands, mediastinal or abdominal, or both simultaneously. In a large proportion of these cases the immediate cause of death was tuberculous meningitis. Death was due to tuberculous meningitis in 44.5 per cent. of the cases. Apparently the dissemination had taken place in the majority of the cases from caseous lymphatic glands, and more often from the mediastinal than from the abdominal groups. In twenty-four cases of tuberculous meningitis caseous nodules were found in some part of the encephalon, but these had not given rise to the meningeal condition in every instance. These children were of the poorer classes, who form the great bulk of the patients treated in the Royal Edinburgh Hospital for Sick Children. In view of the wide divergencies which appear in statistics emanating from different countries the only rational conclusion to be arrived at is that these differences depend not on the manner of treating the material but upon the material itself. Statistics, therefore, representing the conditions prevailing in any one country should not be considered as applicable to the conditions prevailing in any other country, seeing that the circumstances and environment, hygienic and social, under which the inhabitants of that country live may differ widely in many important respects.

When ordinary cow's milk is acted upon by human gastric juice it forms a firm curd which is broken up and digested with great difficulty; human milk, however, forms a finely divided curd, which is readily acted upon by the digestive juices.

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A New Book.

Dr. Robert Gray, of Pichucalco, Mexico, has written a most interesting book to which he has given the appropriate title, "Specific Medication." The book is full of facts that are of inestimable value to every physician. Dr. Gray is one of the oldest physicians in Mexico, and he has won the respect of the medical profession everywhere by his valuable contributions to medical literature. Dr. Gray gives in the most open manner his experience with many drugs. About one remedy, with which many physicians are acquainted, Anasarcin, Dr. Gray is very emphatic. He says: "Anasarcin.—This has cured for me some of the most fearful cases of dropsy that I ever saw in all my long experience, not having failed me once." These words, strong as they are, will strike a responsive chord in the hearts of many physicians who have had similar experiences.

Dr. Gray's book is sent out as a message of truth to the profession with no apologies, and it will find many appreciative readers. —Therapeutic Record, April, 1909.

Infantile Splenic Anemia. Hunter (in The London Medical Journal) records ten cases of this affection. The writer's remarks leads to the conclusion that the condition is not a primary, but rather a secondary anemia, and in the main due to a functional disorder of the blood-forming organs, depending chiefly on a debility of these hemopoietic tissues, a debility perhaps inherited, but depending (in common with other tissues) for its production chiefly on such faults as lack of suitable food and fresh air, but at times determined by the toxins of measles, syphylis, and other infections. If a number of children are ill-fed, all their tissues suffer more or less, but usually one tissue more than another, the tissue most affected varying in different children. Hence with some children the debility affects chiefly the blood-forming organs. With some insufficient food or fresh air at once determines anemia. That these infantile anemias are of this nature is shown by the results of treatment. Give the infant suitable food and plenty of fresh air and, provided no complication such as pneumonia occurs, a cure may be confidently looked for in time.

Treatment by Nurses.

Chicago has her difficulties, as well as other sections, with nurses. The Medical Review of Reviews (April) speaks of it thusly:

"There is some danger that the school inspection and school nursing may be permitted to exceed the proper limits of such activity. It is noticeable in Commissioner Evans report, for example, that school nurses treated 863 cases of ringworm and 2,357 cases of impetigo during the quarter ending March 31, 1909, which indicates a *willingness*, if not a desire, to treat the school children, to the neglect of the family physician. Thirty-six cases of favus were also treated by nurses, and, as every dermatologist knows, it is one of the most difficult of all skin diseases to cure. We are confident that school inspection and nursing under the charge of the health board is of the greatest value, but competent supervision is essential by the medical officer of health, and the family physician has a right to demand all due consideration. Thus far we sympathize with the members of the Chicago Medical Society. Adequate qualifications on the part of both physicians and health officers and thorough co-operation will not only advance the general welfare, but will insure a negative answer to all fear for the future of the medical profession."

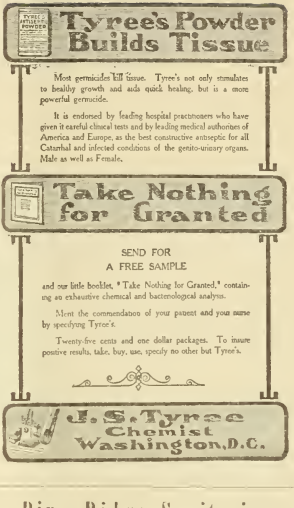
A Scientific Priest on the Dangers of Holy Water.

The sanitary dangers lurking in "holy" water have often been referred to by medical men. They have recently been scientifically studied by a monk, Fr. Augustin

Gemelli, who is himself a highly qualified medical man. He publishes his results in the *Scuola Cattolica*. Each cubic centimeter of holy water in the basins in the church of Santa Croce, Turin, taken from the surface contained 150,000 microbes, while a cubic centimeter taken from the bottom contained no less than 6,000,000 microbes. He injected this water into animals and always found that it killed them, the causes of death being tuberculosis, colitis, or diphtheria. He does not think a daily cleansing with corrosive sublimate sufficient, but recommends a new form of holy water receptacle so constructed that persons instead of dipping their fingers into it can obtain three drops of water by pressing a button. A vessel of this nature has been placed in the church of Vergiate, Milan. Fr. Gemelli turned his attention to the grilles in the confessional boxes. Water which had been used for washing these only contained 25 microbes per cubic centimeter and when injected into animals only proved fatal to 10 per cent of them.—London Lancet.

Rest Treatment in Chorea.—Rubrah (British Journal of Children's Diseases) says that a modified Weir-Mitchell treatment gives quicker, better, and more lasting results than any other method. Every child should be kept in bed until the movements have ceased entirely, and the patient has gained in weight. In the average case no medicine is required. Iron is indicated if there is anæmia. Rubrah does not use arsenic. With one or two exceptions all the cases so treated improved rapidly. In the mild cases the movements ceased in two or three days, and in the moderate in a week or ten days, and in the severer in from two to three weeks. The shortest stay in hospital was ten days, the longest 72, and the average 36 days. Recurrences under this treatment were exceptional.

Operative Indications in Fibroma Uteri.—Faure (Presse Med.) states that the evolution of fibroma uteri makes of it a unique growth, no other pathological tissue increasing and then spontaneously undergoing regression at the moment of the menopause. It is a tumor that for an indefinite period causes no symptoms and then may undergo regression without having been recognized. There is no reason for operating on every fibroid as soon as it is diagnosticated without waiting to see whether it causes symptoms. At the same time, we should recognize that this growth is a serious affection, and one that should be watched from time to time to see if it is producing any of the serious symptoms: hemorrhage, pressure, and disorganization of the kidneys from obstruction of the ureters. When any of these occur we should not hesitate to operate. When these tumors grow rapidly it is generally because they are undergoing sarcomatous degeneration and taking on a malignant character. Whenever the general condition of such a patient grows rapidly worse it is time to operate. When pain, weight in the abdomen, and hemorrhage are making the life of the patient miserable and the woman is of the working class and must be on her feet and cannot rest, we should disembarrass her of her burden. These symptoms are gradually aggravated, and a time will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come when the patient can bear no more without becoming an invalid. The time of life of the individual has an important bearing on the conduct of the case. In a young woman it is necessary to operate, But in a woman who is near the menopause it is best to wait and see if atrophy will not remove the necessity of an operation. Especially at the menopause will any sign of degeneration of the tumor call for immediate operation.

Radium and X-Rays in Gynecology.—Foveau de Cormelles (Gaz. de Gyn.) cites his previous publication of results obtained in the treatment of uterine fibroids and the artificial menopause, by means of small doses of X-rays. used with an aluminum shield. The author now brings forward the rays as an efficient and safe method of production of artificial abortion in cases where pregnancy is jeopardizing the life of the mother. It was used in a young woman who was tuberculous, and in whom uncontrollable vomiting was dangerously reducing her strength. After twenty-five sittings delivery of the placenta and fetus occurred normally. The rays were used for five minutes at a time over the abdomen for four days: then one day over the thyroid; then returning to the abdomen. They are also useful in the treatment of hemorrhages. In the form of a paint combined with inert substances radium has been successfully used in skin lesions. But its use in this manner for the uterus in cases of fibroids involves the danger of burns. It is therefore used in tubes for treatment of uterine fibroids. Applied to the mammary gland it has the effect of drying up the secretion, causing regression when it has been established, and preventing the formation of milk during pregnancy.

Hammerschmidt (Med. Klin.,) advises tha both Calmette's reaction and Pirquet's test of inoculation by scarification of the skin should be used coincidentally in order that one may neutralize the mistakes of the other. For Calmette's reaction one drop of not more than 1 per cent. of tuberculin dissolved in 5 per cent. phenol solution was instilled into one eye. For Pirquet's test the arm, after being rubbed with 60 per cent. alcohol, was touched with a drop of 20 per cent. of tuberculin and then on the same place a cross was scratched with a new boiled steel pen. When Calmette's test was positive, Pirquet's test was also always positive, but the reverse was not always the case. He thinks that a negative result speaks with great probability against tuberculosis, while a postive result speaks with still greater probability for tuberculosis. He thinks that the combined Calmette and Pirquet tests may completely replace the diagnostic injections.

The Medical profession has not only made its advances in the line of appliances in the treatment of diseases, but it is equally as well represented with the improvements that have been made in the line of a general antiseptic. There are so few antiseptics offered to the medical profession that can be relied upon in all cases where an antiseptic is indicated that when one is offered to the profession, it is not surprising that it receives such a reception. One of the best antiseptics that is now offered to the medical profession and one that can be used with success in the treatment of minor and major surgery good under the name of Campho-Phenique. It has been on the market for the past twenty-five years and there are few physicians of any prominence to-day who have not used this remarkable preparation.

Polyneuritis During Pregnancy—Krivky (Ann. de Gyn. et d'Obst.) says that ninety-two cases of neuritis during pregnancy have been detailed in literature, of which thirty-six appeared before labor and fifty-six afterward. There were forty-six cases of pyroneuritis, of which nine were fatal. Sometimes incoercible vomiting and polyneuritis are coincident in the same case. The cause is said by some to be hepatotoxemia. The causative agent of the two conditions is probably the same. He mentions a fatal case obferved by himself, in a woman of twenty-six in her second pregnancy. She was anemic, having had scarlet fever and marked constipation; her neuritic troubles began some six weeks before labor, when she was in comparatively good health, with a sudden weakness of the lower extremities, which increased to entire paralysis, and extended to the muscles of the upper extremities, the throat, and the pneumogastric nerve. It became impossible for her to swallow, and she died in an attack of suffocation from paralysis of the nerve. Some hours before her death labor had begun, and an attempt to deliver by artificial dilatation was made successfully, but the patient died. The only remedy for this condition is to provoke premature labor with the hope of stopping the source of the poisoning.

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Gastric Digestion in Infants.—Clarke (Dublin Med. Journal) says that many and contradictory results have been obtained; a few facts, however, seem to be pretty definitely proved. In the first place, it may be said that all the factors present in the adult are found in a weaker form in the young infant. In the newborn child on breast milk the stomach usually empties in from an hour to an hour and a half; as the child grows older this time becomes longer. The few drops of gastric juice found in the empty stomach are the remains of that secreted during the last meal, and are not due to a secretion into the empty stomach. The motility is more rapid in breast fed children than in those on cows' milk or artificial food, and more rapid in the healthy than in the ill child. The acidity immediately after a meal is nil, but steadily increases during digestion, and is less in the very young than in the older. On a barley water diet free hydrocloric acid appears in the stomach in a few minutes, but on a milk diet it does not show itself for an hour or more, due to the fact that the casein absorbs it or combines with it in some way, and the free acid does not appear until the casein has taken up all required for its complete digestion. The free acid appears later in disease than in health, due to the increased amount of food in the stomach and to the slower secretion of the acid: in cases of pylorospasm the acidity is increased. Opinions differ as to the occurrence of lactic and volatile fatty acids, but these probably do not occur in healthy breast fed infants, while in those ill or on cows' milk they are fairly common. Part of the acidity is probably due to a fat splitting enzyme in the infant's stomach. Pepsin is present at all ages and in all kinds of health, and acts in the infant stomach though to a less degree than in the adult. The pepsin digestion goes on to the stage of peptones, but not beyond that. The fact that the stomach contents will no not fibrin in thermostat is due to the fact that all the hydrochloric acid is combined with the casein, and while the protein with which it is combined will be acted upon by the pepsin, a foreign protein without the addition of more acid will resist the enzyme. Rennin occurs in the stomach after the first few weeks of life; whether during the first week is a question.

Removal of the Tonsils.—Waugh, in the Glasgow Medical Journal reports nine hundred cases of complete removal of the tonsils. The instruments required are two Hartman's ring conchotomes, a useful secretion to the margin of the lower, one pair of curved scissors, and a finely toothed dissecting forceps. The patient must be prepared by a preliminary visit to the dentist, so that no operation in the oral cavity is performed until all carious teeth have been stopped or removed. The patient is placed in a recumbent position with a sandbag beneath the shoulders, with the head falling slightly backward, so that the nasopharynx slopes backward and downward, thus enabling the small quantity of blood which is shed to trickle toward the nostrils rather than toward the larynx, whilst the slope is not so great as to cause engorgement of the pharyngeal venous plexus. A loop of silk is passed through the top of the tongue for the purpose of retraction, and a gag is inserted between the last molar teeth. The tonsil is then seized in the ring forceps and gently drawn toward the middle line, so that the imbedded part of the gland bulges beneath its normal coxering of the anterior pillar of the fauces. Immediately external to the internal margin of the anterior pillar, just where it blends with the surface of the tonsil, an incision is made with the finely toothed forceps, parallel to and extending for the whole length of the free margin of the anterior pillar. This incision reveals the capsule of the tonsil which now appears as a glistening smooth bluish white surface. The ease and success of the operation depend upon this incision displaying the capsule of the tonsil and not entering its substance. This mistake is easily made by keeping too near to the free surface of the tonsil, and it is the common cause of difficulty and failure for beginners. The ring forceps is then readjusted so as to get a firm hold upon the tonsil and the anterior pillar is drawn outward by means of the fine toothed forceps. The tonsil is then practically dislocated from its bed, and the separation of the rest of the layer of fine cellular tissue, intervening between the capsule of the tonsil and the muscular wall of the pharynx, is easily effected either by the finely toothed forceps or by a closed pair of curved blunt ended scissors which fit in behind the whole of the tonsil and push the pharyngeal wall away from it. Since the tonsillar vessels are thereby torn across and are able to retract within the muscular wall of the pharynx, there is practically no bleeding—in fact, the absence of bleeding forms a striking contrast to the sharp hemorrhage which ensues after the tonsil has been cut across by a guillotine. The time occupied in the complete removal of both tonsils and adenoids is, on an average, three minutes. A brief, deep anæsthesia with chloroform is necessary, and the coughing reflex should be abolished. For the after treatment a simple mouth wash is provided and

a mixture containing sodium salicylate and potassium chlorate, administered every few hours. The patients are kept in bed for about forty-eight hours and are allowed solid food when they feel inclined for it. With children this is frequently on the day after the operation.

Eczema in Infants.—Mendelsson (Munch. Med. Woch.,) states that according to Finkelstein, the eczema of infants is due to disturbed assimilation of the salts in milk; its treatment therefore is not local, but must consist of dietetic measures. The best diet is pour in salt but rich in proteid and fat, and is prepared by removing the salts of milk by washing the casein in water and then mixing it with diluted whey. The writer says that he obtained very good results with Finkelstein's diet, the eczematous conditions disappearing much more quickly and surely than with the older local treatment. The loss of weight noted on this diet should not stop its use, as it is caused by the rapid loss of water with the removal of salts in the tissues. The diet, however, should be tried only in such children who can bear fat well; such infants are usually large for their age, have a pastry skin and are prone to manifest not only

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eczema but other phenomena of "exudative diathesis." They stand the withdrawal of salt very well if it is not continued too long after the curative effect upon the eczema has been noted.

The Treatment of Eczema of Infants and Young Children by Thyroid.—Eason (Scottish Medical and Surgical Journal) reports a series of consecutive cases of eczema in young children successfully treated by thyroid. In the first case, fourteen months old, the baby had suffered from eczema of the face for nearly a year. This had been entirely resistant to the usual applications and internal treatment, nor was hospital treatment more efficacious. Two and a half grains of a thyroid tablet was given daily. In a little more than one month the child was entirely well. His cure persisted for nearly a month, when the disease showed a tendency to recur. The second course of thyroid was followed by a permanent cure. The other cases gave similar results.

Researches into the Haemoglobin Content of Tubercular Children.—Lorenzi ('La Pediat.') says that (1) the number of red corpuscles diminishes in proportion to the gravity of the illness and rises when an improvement in the general condition occurs. Alteration in form is shown by more or less marked frequency of microcytes with or without poikilocytosis. (2) The hæmoglobin content is relatively below the number of red corpuscles. Oligochromæmia becomes more marked with the advance of the disease, and is usually more marked in the marasmus of chronic forms. It improves with the general condition. (3) The relative amount of iron remains always below the correfponding amount of hæmoglobin. This inferiority is more marked when the disease is progressing, and tends to disappear, on the other hand, when the acuteness of the disease diminishes. (4) The globular value, calculated with respect to iron, is always inferior to that of the hæmoglobin, but their variability is not always proportionate, although they are both in relation with the course of the disease and the general state of the patient. (5) His researches in a general way lend support to the theory of Bard with regard to variations in the quality of the hæmoglobin, and he is of opinion that in infantile tuberculosis the alterations in the relation of iron and hæmoglobin are chiefly referable to a condition of hypohæmatopoiesis.

The Sequelae of Scarlet Fever.—Schick (Jahrb. f. 'Kinderheilk.') discusses the following sequelæ. (1) Post-scarlatinal fever: In the period comprised between the twelfth day and the seventh week, most frequently in the third and fourth weeks, a rise of temperature, usually without constitional disturbance, occurs, for which neither at the onset nor later is any abnormal condition of the organs to be found: (2) Rheumatism: As a rule this occurs towards the end of the first week or in the course of the second, and may be associated with endocarditis, the onset of which is often insidious. The fever accompanying endocarditis is usually remittent, and ends by lysis. In all his cases of endocarditis the initial attack had been mild. Rhematism occurring later than the second week is rare. He had seen only four such cases—three in the third and one in the fourth week. (3) Secondary adenitis: This may occur as an herald or as an accompaniment of nephritis and also as an independent sequela. It subsides long before and is more frequent than nephritis. Nephritis and secondary adenitis do not occur before the twelfth day or later than the sixth week, most cases being found in the third or fourth week. (4) Relapses: Schick has collected 72 cases, including 13 personal ones. Like the other sequelæ of scarlet fever they occur most frequently in the third or fourth week. It is doubtful whether the initial attach and the relapse are to be attributed to the same infection, or whether the relapse owes its origin to a fresh infection from without. He, like Hekoch, thinks that the scarlatinal virus has not been completely eliminated by the primary attack. In discussing the cause of the interval between the primary symptoms of scarlet fever and the appearance of the above sequelæ, he suggests that at the usual time for the onset of sequelæ the organism has a diminished power of resistance or else is super-sensitive. This period of diminished resistance or of super-sensitation lasts from the end of the second week till the seventh week, and is most marked during the third and fourth weeks, after which the tendency rapidly diminishes. The hypothesis of a specific sensitiveness of the organism after scarlet fever has an analogy in other morbid processes, *e. g.* in typhoid fever and in the serum disease.

Prolonged Priapism.—Terrier and Dujaries (Revue de Chirurgie) describe this rare affection, and collect in the medical literature of the world 48 cases. This form of priapism is an erection which is not accompanied by sexual desire or by voluptuous sensation; on the contrary, it is frequently painful. It is never followed by ejaculation. In the greater number of cases the erection involves only the corpora cav-

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Treas. S. C. Stanton, M. D. Chicago, Ill. Next Meeting St. Louis, Mo,. Oct. 12, 13, and 14th 1909.

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Giles C. Savage, M. D., Pres.
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MEDICAL ASSOCIATION OF THE SOUTHWEST.
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Montgomery, Ala.
B. L. Wyman, M. D., Pres.
Birmingham, Ala.

FLORIDA MEDICAL ASSOCIATION.
Annual meeting at Pensacola, Fla., April 7-9, 1909.
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J. F. McKinstry, Jr., M. D., Pres.,
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MEDICAL ASSOCIATION OF GEORGIA.
Annual meeting at Macon, Ga., April 21, 1909.
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Thos. D. Coleman, M. D., Pres.,
Augusta, Ga.

KENTUCKY STATE MEDICAL ASSOCIATION.
Annual meeting at Winchester, Ky., Oct. 1909.
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Bowling Green, Ky.
John G. Cecil, M. D., Pres.,
Louisville, Ky.

LOUISANA STATE MEDICAL SOCIETY.
Annual meeting at New Orleans, La., May, 4-6, 1909.
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E. Denegre Martin, M. D., Pres.,
New Orleans, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION.
Annual meeting at Jackson, Miss., April 13, 1909,
E. F. Howard, M. D., Sec.,
Vicksburg, Miss.
J. W. Gray, M. D., Pres.,
Clarksdale, Miss.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.
Annual meeting at Asheville, N. C., June 15 and 18, 1909.
D. A. Stanton, M. D., Sec.,
High Point, N. C.
J. F. Highsmith, M. D., Pres.,
Fayetteville, N. C.

NEW MEXICO MEDICAL SOCIETY.
Dr. G. K. Angle, Silver City, N. M. Pres.
Dr. G. S. McLandress, Albuquerque, N. M. Secretary.
Dr. C. G. Duncan, Socorro, N. M. Treas.
Next meeting at Roswell, N. M., in the fall of 1909, the date to be announce later.

SOUTH CAROLINA MEDICAL ASSOCIATION.
Annual meeting at Summerville, S. C., April 21, 1909.
Walter Cheyne, M. D., Sec.,
Sumter, S. C.
S. C. Baker, M. D., Pres.
Sumter, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.
Annual meeting at Nashville, Tenn., April 13-15 1909.
Geo. H. Price, M. D., Sec.,
146 8th. Ave., N., Nashville, Tenn.
B. D. Bosworth, M. D., Pres.,
Knoxville, Tenn.

MEDICAL SOCIETY OF VIRGINIA.
Annual meeting at Roanoke, Va., fall of 1909.
Landon B. Edwards, M. D., Sec.,
Richmond, Va.
Stuart McGuire, M. D., Pres.,
Richmond, Va.

ernosa. They are distended and hard. The glans and corpus spongiosum are sometimes increased in volume, but soft and of a totally different consiftency from that of the corpora cavernosa. One can feel their hardened points through the glans. The pain generally begins some hours after the beginning of the erection, and can at times be very severe. In severe cases the patient is in a perpetual agitation, with the face moist with sweat, and anxious. He rolls himself about and cries lustily. The pain does not continue with such intensity, but abates and then returns in attacks, The weight of the bedclothes is unbearable, and the patient particularly dreads any attempt to lower down the penis.

As a general rule micturition is normal; in some cases retention follows, and the use of the catheter is required.

This affection ends generally in gradual recovery, sometimes at the end of a few weeks; other times at the end of two or three months. Of the 48 cases collected, 31 recovered spontaneously, 5 died later on from leukæmia, 10 were operated and recovered, 2 died in full priapism.

Owing to the difficulty of following up those cases, it is impossible to say what the after results have been, but in many cases permanent impotence followed.

The cause of this disease is not well ascertained. Leukæmia seems to be the most frequent cause. As regards treatment the authors recommend an early incision in both corpora.

Pseudo Hypertrophic Paralysis in an Advanced Stage.—R. Barclay Ness, in The Glasgow Medical Journal, mentions the case of a boy, aged 13 years, and was one of a family of six. None of these were affected in the same way as the patient. Between three and four years of age he was recognized as being in an early stage of the disease. He then had large calves, wadling gait, lordosis, and the characteristic way of arising from the supine to the erect position. The succeeding years had been marked by a gradually increasing failure of muscular power and by wasting of muscles. At the age of thirteen years the boy showed great emaciation and general helplessness. Lying on his back he could only to a slight extent pull up and extend his legs. He could move his arms slightly, but they were quite flail-like. He could not raise himself into the sitting posture. Placed in this position his back became markedly curved (kyphosis). Any attempt with hands in the armpits to raise him by the shoulders only elevated the scapulæ and brought them together on the back, all support having been evidently lost by the wasting of such muscles as the pectoralis major, latissimus dorsi, serratus magnus, etc. He could not support himself on being placed on his feet. Both knees were partially flexed from contracture of the hamstring muscles, and could not be extended. Both feet were in the position of talipes equinus from contracture of the calf muscles. There was such weakness of the extraordinary muscles of respiration that the child could not easily by coughing clear his bronchial tubes of mucus. The life of the patient in this advanced state depended on the progress of the increasing muscular weakness and the chance occurrence of some pulmonary complication. Complete rest for any time was considered a mistake, as the muscles rapidly waste and the patient becomes gradually more and more helpless.

Alleged Dangers of the Conjunctival Reaction.—Teichmann (Mediz. Klinik), bases the following conclusions on his observation of 1500 cases, and on a comparison with the results obtained by others: (1) That the harm alleged to have been caused by the conjunctival reaction depends without exception on the choice of unsuitable tuberculin preparations or on the neglect of important contraindications. (2) That the installation, in diseased and especially in tuberculous eyes, in the scrofulous. particularly in those of youthful age, and a second time in the same eye, especially with strong solutions, is not permissible. (3) That the conjunctival reaction—undertaken with freshly-prepared solution—is absolutely free from danger, and is at present the simplest means of diagnosing a tuberculous focus, not recognizable by other clinical methods of examination.

The cases observed by Teichmann were all treated with one per cent old tuberculin, and the majority showed only a mild conjunctivitis lasting three or four days. Isolated cases, however, occurred in which chemosis, follicular enlargement, purulent secretion, and subjective sensations of pressure and burning were present. These were limited to the conjectiva, and disappeared in four to eight days, leaving no trace, and the eyes after some further months of observation still gave no sign of conjunctival irritation. Reactions which threaten to be severe are readily checked by the instillation of cocaine 2 per cent and adrenalin 1 in 1000. These marked reactions occur almost solely in cases in which tuberculosis is clinically manifest, so that the test will not in future be used in such cases, but if it is used, a transient ophthalmia is better than the general disturbances which, in these same cases, would probably occur from the injection of tuberculin. Severe conjunctivitis of long duration, corneal ulcers, iritis, etc.,

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described as having been occasioned by the conjuctival reaction, were in no case observed.

Calmette's and Hochst's tuberculin are inconstant and much too strong. The author advises the use of Koch's old tuberculin in one-per-cent or at most two-per-cent solution. Any irritant condition of the cornea is an absolute contraindication. Simple chronic conjunctivitis was never made worse, nor did any complication arise, but the tost is difficult to determine in such cases. In the literature, harm resulted in no case (with a single unexplained exception) from any other cause than the omission of one or other of the above mentioned precautions, which have been experimentally learned to be necessary.—British Medical Journal.

The Possibility of Preventing Diabetes or of Postponing its Onset.—Williamson, The London Practitioner, states that precautions for preventing or postponing the onset of diabetes may be considered in the following cases:

1. In the case of individuals who have a family history of the disease, and especially if a brother or sister has suffered.

2. In the case of Jews, whose profession or business cause great mental oxerstrain, especially those who are very ambitious, those who are very stout, who eat an excess of food, aud who take little exercise.

3. In the case of women whose urine has contained a considerable amount of grape sugar during pregnancy, which has disappeared after parturition.

4. In cases of gout, acromegaly, and great obesity, especially if the obesity, should have developed at an early period of life.

5. The possibility of diabetes is worthy of a thought in the case of men who have reached the age of forty or fifty, who have had great mental strain in their profession or business, who have been very ambitious, worked very hard, and taken little exercise. If such individuals have taken an excess of food and alcohol, and have become stout, there is a greater risk.

6. In very stout women just after the climacteric period, and after an operation on the uterus or ovaries, the risk of diabetes is worth bearing in mind, especially when there is a family history of the disease.

7. When the urine has been found to contain a trace of sugar temporarily after an acute illness,, an injury, an excess of sweet food, etc. or at the examination for life insurance, the question of the prevention of permanent glycosuria, or true diabetes, requires consideration.

8. In all cases of permanent slight glycosuria it is desirable that the mode of life, diet, etc., should be carefully considered and regulated, with the object of preventing, if possible, the affection from developing into a severe form of diabetes. Many cases of slight or temporary olycosuria develop, in course of time, into severe diabetes; but it is important to remember that this is nor always the case, and, both in the young and the old, a slight glycosuria may disappear or remain slight or intermittent, without progressing into severe diabetes.

When a consideration of the family history or life history of any individual leads us to think that there is a special risk of diabetes developing, the following precautions as to the mode of life appear to be advisable, in view of what is known regarding the etiology of the disease:

Sugar, sweets, chocolate, very sweet fruit, and all articles of diet or drinks containing much sugar should be avoided. It is easy for most individuals to acquire the habit of taking food without sugar; but if there should be difficulty in this respect, saxin or saccharin may be used.

Unless actual glycosuria has been detected there is no reason why an average amount of starchy food should not be taken; but of course great excess of starchy food would not be desirable. As already mentioned, observations on ailmentary glycosuria show that sugar is much more powerful than starch in producing glycosuria.

The total amount of food should not be excessive, especially after the age of forty. Strict moderation as regards all forms of alcoholic beverage is important, and sweet wines (especially port, Tokay, and champagne) and liquors should not be taken. Beer should only be taken in very moderate quantities. All beverages containing much sugar should be avoided.

A sufficient amount of outdoor exercise is very desirable, and this particularly important if the occupation should be a sedentary one. Dyspepsia and constipation should be treated, since severe dyspepsia is occasionally an antecedent of diabetes, As mental worry, mental overstrain, and overwork are so often exciting causes of the disease. it is advisable that those who are considered to be predisposed to diabetes should, if possible, choose an occupation in which there is not a special risk of these injurious influences, or that the work should be so arranged, or modified, as to diminish this risk to the minimum.

The possibility of diabetes developing is worthy of a thought in the case of successful barristers, solicitors, and medical men, who are working at high pressure, and have little time for exercise or holidays, and also in the case of publicans, who are taking al-

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The physical and mental overstrain connected with the nursing of a sick relative or friend through a long illness should be avoided by those who are thought to have any predisposition to diabetes.

In the case of married couples, if one should suffer from diabetes, it is probable that the liability to diabetes in the other is very slightly increased, whatever may be the explanation.

In cases in which a temporary or slight glycosuria has been detected, in addition to the precautions already mentioned, the starchy articles of food should also be restricted, because it is most important to prevent, or postpone, the development of true severe diabetes in such cases; and it is important to remember that, if the development of true diabetes can be postponed until the individual is past middle life, the disease will probably be of a less severe form.

When a considerable amount of grape sugar has been present in the urine during pregnancy, and especially if there have been thirst and diuresis, it is most desirable that pregnancy should not occur in the future.

Pulmonary Tuberculosis in Children.—Williams (British Medical Journal) says that phthisis is one of the most common diseases of childhood, and, among those who die of it at the ages when it causes the highest mortality, the majority have contracted and suffered from the disease in childhood. This view is supported by death and morbidity statistics.

In the immense majority of cases tuberculosis is not contracted by inhalation, but by the ingestion of bacilli or bacilliferous products by way of the intestinal mucosa. The tendency of the disease in these cases is to cure.

Important early symptoms are night sweating, morning anorexia, and fatigue. It is urged that the greatest care be taken to detect these cases early by the medical school inspectors and, when found, that the children be sent to open air schools.

Tee Heart in Scarlet Fever and Diphtheria—Broadbent (The London Practitioner) finds that in London out of 22,002 cases of scarlet fever, endocarditis occurs in only 0.58 percent. Pericarditis is still more uncommon, the percentage being about 1-10 per cent. Both endocarditis and pericarditis are most apt to occur in association with rheumatism following scarlet fever. Notwithstanding the frequent occurrence of a systolic mitral murmur, true endocarditis is found in very few of such cases.

The most striking feature concerning the circulation is the acceleration of the pulse, which is out of all proportion to the height of the fever, and is particularly marked in children in whom it is apt to persist long after the fever and other symptoms have subsided. It is probably due to some disturbance of the nervous mechanism of the heart by the toxins of the disease.

In diphtheria the changes produced in the heart consist mainly of granular and fatty degeneration of the muscle fibers and of the muscular coats of the blood vessels. But these changes do not satisfactorily explain the attacks of cardiac syncope which at times occur in diphtheria. Degenerative changes in the pneumogastric nerve probably account for the tendency to cardiac syncope, which is all the more apt to take place because of the degeneration in the heart muscle. As to treatment, prolonged and absolute rest in bed is essential when there are disturbances of the rhythm, rapid heart action or shortening and weakening of the first sound. The *Bruit de Galop* is a grave danger signal. Small, easily digestible meals with the use of strychnin hypodermically are recommended.

Acne Vulgaris and its Treatment by Vaccines.—Fleming, in the Edinburgh Medical Journal, describes the acne bacillus, as seen in smears of comedones and pustules, as a small Gram staining bacillus varying in length from under 1 in. to 3 in. or in. 4 and about $^1/_2$ in. wide. The younger forms stain evenly and darkly, but commonly the older forms show one or more deeply stained dots in their interior. These dots may be situated at the poles or they may be present along the whole length, resembling a chain of small cocci. The tenacity with which these bacilli retain Gram's stain is not nearly so marked as in the case of the staphylococcus, and it is quite easy to so stain a film that the bacilli are decolorized, while the cocci are deeply stained. The arrangement of the bacilli in pus is very irregular, single bacilli are present, pairs are common, especially arranged as a V, and large irregular groups are almost invariably to be seen; the microscopical characters of the bacillus in pus films and also in smears from cultures are very similar to some of the diphtheroid bacilli one meets with in superficial ulcers and elsewhere, and it is very probable that it is to this group that the bacillus belongs. The bacilli are often found inside the pus cells, and the same film may show phagocytosis of both bacilli and cocci, one may see both taken up by the same cell. In the comedo the bacilli are in general shorter

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and stouter, and stain evenly, while in the pustule longer forms are seen with very irregular staining. The author thinks that it is definitely proved now that in localized infection, when one innoculates the patient with appropriate doses of a carefully prepared vaccine derived fron the infecting organism, one obtains a beneficial effect. Very frequetly in treating a case of acne with staphylococcus vaccine it is found that there is a definite improvement for a time, then the condition remains stationary in spite of any modification in the dose or character of the styphylococcic vaccine. This is exactly what would be expected from a consideration of the bacteriology, as it is only in a certain number of cases that the staphylococcus is present, and even when present it is not responsible for the whole condition. We can, therefore, divide cases of acne vulgaris for therapeutical purposes into three classes. The first will consist of those cases in which the comedo is the dominant feature, with, also, some of those which have progressed further to the indurated and postular stages. In this class of case the acne bacillus is the offending agent and the staphylococcus if present at all is playing a subordinate role. This class, therefore, may be treated with a vaccine of acne bacillus alone. The second class consists of a large number of the indurated and pustular varieties where both staphylococcus and the acne bacillus appear to be playing an active part in the causation of the inflammatory process. The therapeutic requirements of this class are best met with a mixed vaccine of staphylococcus and acne bacillus. The third class consists of those less common cases where there is more acute inflammation, tending almost toward a furuncular form. Here microscopical examination will show that the staphylococcus is the chief offender and treatment should be directed at first against this factor, not forgetting, however, that at the basis of the condition there is an acne bacillus infection.

The Treatment of Uterine Hemorrhage with Serum.—Busse (Zentralblatt fur Gynakologie) reports his results in the treatment of ten cases. All were cases in which there was apparently no anatomical cause for hemorrhage, and in which the hemorrhage was not controlled by other measures. Curettage had not been successful. In all the cases the anemia from the hemorrhage had become sufficient to have a serious influence upon the general health of the patients.

The treatment consisted in the injection of 10 c.c. of human serum subcutaneously. The serum was taken from healthy subjects who were under treatment simply for uterine displacements. The serum was derived from the blood taken with the patient under scopalimin-morphin anesthesia just prior to operation.

The writer's results were very gratifying. All the patients were benefited and in some the hemorrhage ceased entirely after one or two days. There was no return of the symptoms in the patients kept under observation and menstruation returned to normal.

Erysipelas in the New-Born.—Herrgott (Annales de Gynecologie et d'Obstetrique) describes erysipelas in the new-born infant as a very serious and generally fatal disease. The fatality depends on the absence of reaction against the germs, due to the absence of phagocytosis in the new-born child. After the age of three months the prognosis is quite otherwise because here phagocytosis goes on normally. Starting from the solution of continuity at the umbilicus the germs enter the tissues and are not opposed by the lymphatic glands. They enter the lymphatics of the subcutaneous tissues, where they are found in great numbers, as also in the outer coats of the blood vessels. A rapidly fatal peritonitis closes the scene. The external redness and swelling are slight, the symptoms of peritonitis being the first seen. Treatment has no effect.

Diphtheria.—Mackay and O'Brien (Intercolonial Medical Journal of Australasia) reports 404 cases. The conclusions arrived at by the authors from this series of cases are:

Provided no complications are present, the best control for the administration of diphtheria antitoxin in faucial cases is the patient's temperature. They gave antitoxin in such dosage, repeated at eight to twelve hours' interval where necessary, that a fall in temperature to the normal line was produced. Practically none of their charts, except those few cases in which complications existed, show a temperature range above normal after the second day. Their average dose of antitoxin was high, but their results were most satisfactory, as evidenced by the comparatively low death-rate, early resolution of the membrane, and low percentage of resulting albuminuria.

Gentle swabbing, douching, and gargling of the throat with simple saline solution, accompanied by mild oral antisepsis, is more efficient and much less distressing than vigorous swabbing and gargling with strong antiseptic solutions, whose tendency is to abrade the mucous membrane, and so produce a fresh raw surface for the spread of the diphtheric membrane.

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Their experience has led them to strongly favor intubation as the routine hospital operation in cases of laryngeal diphtheria. Their procedure has been first to try an initial dose of antitoxin, say 20,000 units, accompanied by external applications of heat to the throat; if that failed, then to intubate, probably giving more antitoxin; and finally, if failure again, to do tracheotomy as a last resort, the child getting 40,000 to 50,000 units of antitoxin.

Paralysis Agitans.—Taylor, in the London Lancet, states the well-known fact that paralysis agitans is one of the most distressing diseases of degenerative type with which we have to deal. The most troublesome symptom is the shaking, but besides this the patient frequently complains of the feeling of constant heat, of free and troublesome perspirations, and not infrequently of sleeplessness. It is idle to hope that we shall ever be able to cure such a disease. But it would be something to be able to relieve some of the troublesome symptoms, and Dr. Taylor has been greatly impressed with the efficacy of hypocine in modifying—one might almost say, in some cases, in controlling—the tremors. The writer gives the hydrobromide, and he gives it with a small dose of strychnine in an acid mixture. The dose he usually begins with is 1-200 of a grain three times a day, and this can sometimes be increased up to even 1-100, but sometimes is efficacious even if only given 1-200 twice daily. The drawback to its use in this and in other diseases with tremor is the excessive dryness of the throat which it produces, and it also in some people very readily apparently produces, and paralysis of accommotion and pupil dilatation, so that these two inconveniences have to be borne in mind, as it is often necessary to reassure the patient who complains of them. Of course, one meets with certain cases—perhaps it is that in these the disease has reached a certain stage—in which no benefit is experienced from the drug. Yet in many cases, as above stated, it is useful in controlling, or at least in modifying, the severity of the tremor.

Puerperal Eclampsia.—Crago (Australasian Medical Gazette) says that fortunately albuminuria in a pregnant woman does not always spell eclampsia. During the writer's connection with a maternity hospital, as well as in private practice, he has seen very many cases of albuminuria in pregnant women (in some the urine was almost solid on boiling) who did not develop eclampsia. The author knows of no means of deciding beforehand which patient will develop eclampsia and which not, although probably the one most subject to headache and nervous recklessness is more liable to do so. Although the amount of albumin in the urine before the onset of the convulsions may be very slight, in most cases the urine becomes solid with albumin afterward. He does not deal with the many theories as to the causation of eclampsia, beyond saying that most authorities agree that it is a toxemia. The onset is always sudden, and in most cases probably the medical attendant called in has not seen the patient defore. The main principles of treatment to be followed are: (1) To control the convulsions; (2) to empty the uterus, if the attack be antepartum; (3) to endeavor to insure the eliminative action of the bowels, the kidneys, and the skin. The two chief methods of checking the fits are (*a*) the administration of chloroform, and (*b*) the hypodermic injection of morphine.

He has an objection to keeping a patient under chloroform for a long time in this condition, as it tends to increase congestion of the kidneys. For many years he has trusted almost entirely to morphine to control the fits, giving at first half a grain, and repeating a quarter of a grain every three or four hours if necessary. In cases of eclampsia the os general! dilates very rapidly, as if nature was making an effort to empty the uterus, so that on making a vaginal examination the os is found dilated to the size of a half-crown, or a crown piece. If the patient is not comatose a little chloroform should be administered, and the cervix dilated either manually or with a Bossi's or other dilator. As soon as the os is dilated to the size of the closed fist, the child should be delivered either with forceps or podalic version. The placenta should be quickly peeled off and the uterine cavity douched with hot saline solution. The bowels are acted upon by enemata or by placing a drop or two of croton oil on the tongue in butter. The skin and kidneys are stimulated to action by wrapping the patient in a blanket wrung out of very hot water. A pint of normal saline solution should be run in under each breast. When the patient is able to swallow, water or barley water may be given freely. He bled three out of four of his earlier cases over twenty years ago. They all recovered, but one symptom remained for a long time in evidence, viz., a forgetfulness of everything that had occurred before the illness.

Injury to the Semilunar Cartilages of the Knee.—Morrison, in The London Lancet, has had occasion to see a large number of the above cases. He has operated on 75

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ATLANTA, GA.

in all. The prevailing assumption that the pathology of injury to the semilunar cartilage is a displacement, the author has found to be entirely wrong. In all of his cases the lesion was found to be a fracture; the dislocation is merely secondary. The writer says that displacement, without fracture, if it occurs at all, must be a very rare event. Of 100 cases, in 98 the internal cartilage was fractured and in two the external. The diagnosis is made by the typical history of sudden locking, the inability to extend the knee, and swelling of the joint following the attack. In a fair percentage of the cases, osteo-arthritic changes may occur, resulting in more or less permanent disability. The treatment of recent cases consists in first reducing the dislocated cartilage. This can usually be done by flexing the joint to its fullest extent and then suddenly extending it. If not, rotatory movements should be made in the fully flexed position before extension is performed. If this also fails, these movements should be repeated under anesteesia. After reduction, splints are applied for six weeks. If displacement recurs, the case may be treated by the aid of a support or by operation. For persons whose livelihood depends on a strong knee, the support is useless and a radical operation is advised. This operation consists in a hockey-shaped vertical incision on the inner side of the knee, opening of the joint and removal of the anterior two-thirds of the affected cartilage. Of 41 operated patients in whom the subsequent history could be traced, 38 reported themselves able to work, while three were still disabled. The average time before work was commenced was about 12 weeks.

Operative Treatment of Intra-Oral Cancer.—Childe (British Medical Journal) mentions the two principals of operative treatment of oral cancer. The neck should always be operated on first, then followed at once or later by the excision of the primary growth. By ligation of the lingual and facial arteries on the affected side the severe hemorrhage is obliterated if the second stage of the operation is undertaken at once, and, if delayed, tends to starve the cancer cells and diminish their activity in the intervnl. The removal of the primary growth is accomplished with great precision, and cancer cells which are left may be destroyed for want of nutrition. A communication between the wound in the mouth and the large wound in the neck should be avoided if possible. This can be done by dividing the operation into two stages. Within a fortnight the wound in the neck operation is healed, and the excision of the growth can be accomplished bloodlessly and without the necessity of a communication between the two regions. In conclusion, he condemns the therapeutic test by the administration of iodine, which should never be used unless the microscopic examination proves very uncertain. It should then be pushed rapidly and its effects watched for only a limited time. Early diagnosis and operation is the only hope.

Iodin in Surgical Tuberculosis.

Dr. W. A. Tatchell saya that tuberculosis of the joints, bones, glands and skin, is the most common disease in China and highly recommends the application of iodin liniment after operative treatment. After operating or scraping, the cavity is thoroughly swabbed with iodin liniment. A piece of absorbent cotton twisted around the end of a probe forms a good swab, and can be graduated according to the size of the sinus. The liniment is applied every day. The application does not cause pain, except a momentary sensation when applied to some surfaces; neither does it destroy tissues, as does pure carbolic acid. Granulations do not become excessive. At the first application he inserts a thin piece of gauze or packs lightly, but never at subsequent dressings. Gauze plugs and strips for drainage have undoubtedly been responsible for many chronic sinuses. From the first he gives a mixture internally, containing syrup of iodid of iron, 1 dram, and potassium iodid, 5 grains, three times a day.—British Medical Journal.

Treatment of Children Suffering from Rheumatism or Chorea.

Dr. D. B. Lees states that every case of chorea in childhood should be considered as presumably rheumatic, and ought to have the benefit of this probability. Every such patient should be at once sent to bed, and treated vigorously for rheumatism. He claims that almost the whole of the heart diseases which exist in patients under thirty years of age, as well as a very considerable proportion of the heart disease of later life, is the result of rheumatic infection of childhood that was either unrecognized or ineffectively treated. The author emphasizes the point that every child who complains of sore throat or of pains in the joints, muscles or tendinous structures, every child who suffers from malaise and unexplained pyrexia, every child whose skin shows spots of erythema or who has subcutaneous nodules on his tendons or round his joints, or subperiosteal nodules on his bones, every child who has pain in his chest, or shortness of breath, or marked pallor, and every child exhibiting even slight choreic movements or merely weakness and incoordination of muscular action or emotional instability should at once be put to bed and his heart should be promptly and carefully examined. The author cites Poynton and Paine's demonstration of a diplococcus in rheumatism and chorea which is capable of producing in rabbits, not merely endocarditis, but cardiac dilatation, myocarditis, pericarditis, arthritis, pleurisy and pneumonia, also subcutaneous nodules and tenosynovitis; in short, all the severe lesions found in a rheumatic child.—British Journal of Children's Diseases.

Treatment of Scarlet Fever.

Dr. Gordon discusses the treatment of uncomplicated cases of average severity, toxic cases (serotherapy), septic cases (local treatment), complications and convalescence. In order to prevent the swallowing of the septic faucial secretion, lozenges

should not be given. The neck should be packed externally with ice bags in order to relieve the pain. The author uses a douche of warm water which has been rendered faintly alkaline with sodium bicarbonate in order to diminish absorption of the toxines from the fauces. The object of this procedure is flushing and not disinfection. The patient should lie on his stomach with the head projecting over the edge of the bed, the forehead supported by one hand of the nurse. At least two pints should be used for each irrigation. Gentle swabbing with a solution of borax is sometimes useful in adults, but the application of germicidal solutions should not be used, and neither the spray nor the paint brush has any legitimate place in the treatment of the throat. A separate nozzle should be used for each patient. In toxic cases he discusses the use of serum, which should be polyvalent, sterile, and not more than six months old. From 50 to 100 c.c. should be given, and he has never seen any harmful result therefrom. In septic cases, germicides should be used in as concentrated a form as possible, in small quantity and should be applied with a swab. The douche also should be constantly used as before recommended. It is not advisable to incise enlarged and tender cervical glands unless definite evidence of fluctuation is obtained, so long as the skin over them is not affected. In septic, as distinguished from toxic cases, streptococcus serum should be avoided. Alcohol in Dr. Gordon's experience is usually both unnecessary and harmful in septic cases.—The London Practitioner.

The Home Treatment of Scarlet Fever.

The line of prophylaxis indicated by the pathology of scarlet fever is for clinical purposes the same as in a series of fatal diseases such as diphtheria measles, and whooping-cough, and of less serio affections such as influenza, mumps, and others, writes Wm. Ewart, of London. It is admitted that in all of them the upper respiratory tract is the headquarters of infection; yet are we ever taught that the entire stress of our efforts at disinfection should be concentrated upon that region?

Whether we are dealing with scarlet fever or with any of the other diseases mentioned, we should bear in mind that cleanliness is the simplest and most efficient of our antiseptics, and that our patient's disease is unwashed until the entire upper mucous tract is systematically and frequently cleansed. The author gives as a simple and painless method, which he has long advocated and practiced in all these conditions, frequent instillations of jasmin oil through the nostrils, to spread above and behind to regions inaccessible to sprays, douches, and gargles, to be continued from the onset through the entire duration of the period of observation.—British Med. Jour.

Treatment of Severe Arthritis.

Schawlow, physician at one of the prominent watering-places for rheumatism and allied joint affections, speaks highly of the beneficial effects of sulphur waters, in combination with massage, gymnastics, stasis, and electricity, in the treatment of the chronic forms. Acute articular rheumatism is usually cured by thirty baths, though the same number of baths and more taken at home may have no effect. In arthritis deformans and chronic articular rheumatism the treatment is naturally extended over a longer period, though the good effects do not admit of dispute.

The third group includes chronic progressive arthritis, a much more serious disease, which is not

influenced by the salicylates and which progressively affects all the joints and is often fatal. In certain respects it resembles the gonorrhoic form, but no specific germs have yet been discovered.

The gouty joint affections are included by the author in a fourth group.

Fibrolysin injections, especially in the more chronic, progressive type, have been found a most valuable adjuvant in the treatment, and have brought about remarkable results when all the other measures failed. As a rule, 30 injections of 2.3 Cc. each were given, one daily, into the gluteal muscles. Improvement was generally noticed only after the twentieth injection. No after-effects were observed, except in a few cases a slight diarrhea. Even patients with valvular disease and lung trouble stood the injections remarkably well. The swelling of the joints disappears, the active and passive mobility returns, and a most marked change in the general condition can be noticed. Fibrolysin acts as a lymphagogue, increases the hyperemia, and stimulates chemotaxis. As a consequence, the firm connective tissue will be softened. —Deutsch. med. Woch.

Marmorek's Serum in the Treatment of Surgical Tuberculosis.

Strauss reports the results from 38 cases of surgical tuberculosis treated with Marmorek's serum. Of this number, 32 were cases of so-called open tuberculosis. In 22 cases, tuberculosis of the bones or joints was present, in 2 cases of the urogenital tract, and in 10 cases tuberculosis of the lymphatic glands. Twenty-six cases had as the only external evidence a tuberculous fistula that had proved resistant to all treatment. Pulmonary phthisis was coincidentally present in five cases. The ages of the patients ranged from three to sixty-three years.

The serum was employed in the following way: In adults, 5 to 10 hypodermic injections of 5 Cc. each were made in the course of fourteen days; then, at intervals of four to six days, 5 Cc. were given by rectum. After 20 rectal injections an intermission of two to four weeks was interposed, and then 20 further rectal injections were given. In a few obstinate cases 5 to 10 additional subcutaneous injections were administered.

In most cases there was a subjective as well as objective improvement. The most serious cases showed a euphoria more marked even than is generally found in pulmonary cases. The appetite improved, and there was an increase in weight. In 5 of the 32 cases, which were discharged as unimproved, this was absent. In the cases with fistulæ and suppurative processes the secretion increased at first after the injections, but was soon followed by a closure and healing of the fistulæ or abscess.

Of 7 serious cases, 4 remained unimproved, 2 were markedly improved, and 1 was entirely cured. Of the cases of moderate severity, 8 were cured, 8 were much improved or almost cured, 2 remained unimproved and became worse. Ten mild cases were all either cured or much improved. Three cases cannot be taken into consideration, as the treatment could not be carried out long enough.

Strauss concludes that the rectal administration of the tuberculosis serum is entirely free from danger, and appears to have been of marked benefit in a series of cases where it was employed in addition to other hygienic and dietetic measures. Where the infection is more disseminated (e. g., pulmonary), the action is less certain, but it is worthy of further trial.—Muench. med. Woch.

Treatment of Chilblains by Hydrogen Peroxide.

Since 1903, when Norman Walker quoted Courtin, of Bordeaux (in the Medical Annual), as originating this treatment, E. Manuel Sympson, of Lincoln, Eng., has frequently employed it, and has been greatly pleased by its almost unvarying success. His plan is for the patient to bathe the affected parts in peroxide of hydrogen (10 vol. strength), diluted with equal parts of previously boiled water, still hot, for fifteen or twenty minutes, twice daily. This treatment has the additional advantage of being capable of being carried out even if the chilblains are cracked and ulcerated, though it is well to diminish the strength of the peroxide if much pain and irritation is produced by the application. A continuation of this treatment for two or three days in most cases will effect a cure. —British Med. Jour.

Splenectomy.

Fisher (Proceedings of the Royal Society of Medicine) reports the case of a woman 47 years old, who entered the hospital complaining of a severe pain in the left hypochondrium, which came on suddenly four days before she was seen. This, for two days was not entirely crippling in intensity, but thereafter had confined her to bed. Pulse, temperature, and respiration were about normal, and the abdominal wall was lax. There was felt, however, a large tumor on the left side, extending from beneath the costal margin just below the umbilical plane, and from the flank beyond the erector spinæ to the middle line in front.

Tenderness was most marked at the antcroinferior margin of the tumor, which felt sharper than elsewhere and notched. The liver was enlarged. The patient had suffered from heart trouble and occasional swelling in the legs and feet. The latter was most marked toward the end of the working day.

The provisional diagnosis of torsion of the spleen was made associated with general visceroptosis. The abdominal incision was made in the left semilunaris and the spleen was removed. It showed two large wedge-shaped infarcts of the lower pole, which accounted for the sensation of notching felt at the examination. The spleen was extremely fixed by adhesions, which were ligated and divided. The woman was discharged from the hospital twenty-five days later, without obvious anemia. Bone-marrow and iron mixture were administered. Examination of the blood six months later showed no notable changes.—Edinburgh Medical Journal.

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Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

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Prickly Heat can be relieved and prevented by the use of Tyree's Antiseptic Powder. Dr. W. M. Chartier, of the Faculte de Paris, France, after using it successfully, says that it possesses curative and preventative properties to a high degree. This is the general opinion of all physicians who have tried Tyree's Antiseptic Powder in abrasions, burns, ulcers, and infected conditions of the skin and mucous membranes. Its high antiseptic properties make it one of the most powerful remedies at the command of the physicians for combating the effects of pathogenic micro-organisms after they have become active, and preventing the further growth and activity of pyogenic bacteria. It is not an expensive preparation, and therefore, even long treatment can be carried out with comparatively small cost to the patient. The doctor recommends in these cases a sponge bath made of one ounce of Tyree's Powder in one gallon of water applied freely three times a day. Sample with

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During the winter and spring months The Watch Hill House has been enlarged, renovated and refurnished. A new and up-to-date laundry has been installed. A number of new rooms, with private baths, has been added. A sun parlor, or enclosed piazza. also for the comfort of the guests, has been built. Many other improvements to both hotel and its cottages have been added.

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In all functional derangements of the nervous mechanism of the stomach, Gray's Glycerine Tonic Comp. will be found of extraordinary therapeutic value. Its action is manifold, manifested by an immediate influence on the gastric tissues and a substantial promotion of the general nutrition. As the secretory and motor functions are improved, the patient's whole condition is correspondingly benefitted.

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Movable Kidney, with Details of an Operation for Fixing the Kidney.—Cheyne, in the London Lancet, says that movable kidney should be discussed from the standpoints of symptomatology, indications for operation and the causes of failure of operations.

A new fixation operation is described: The patient lies on the back with a small pillow under the loin, projecting it slightly forward; it is not necessary to push the lumbar region very far forward. An incision is then made along the edge of the rib-

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and an inch below them, beginning about the edge of the latissimus dorsi, or practically just where, looking down on the patient, the anterior surface of the abdomen ends, and from this standpoint it is carried forward parallel to the edge of the ribs for from three to four inches. It is well to make the incision short in the first instance it can be subsequently lengthened if necessary. The skin and fascia are divided and also the external oblique muscle; the internal oblique and transvalis muscles can be partly separated and partly divided. They only require a little division here and there, and any nerves that are crossing can be pulled out of the way. One then comes down on transversalis fascia. The fascia is not divided but is pushed towards the middle of the line, the peritoneum, fascia, and kidney being thus carried forward together. In this way there is less risk of tearing the peritoneum, and we also get at once to the posterior surface of the kidney, which can be easily felt. The edges of the wound being well retracted and the fascia and peritoneum being held well towards the middle line, and the kidney being fixed by the assistant's hand placed in front of the abdomen, the outline of the kidney can be

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readily palpated. A hole is now made in the perirenal fascia over the posterior part of the kidney, and the renal fat will at once protrude. This hole can now be enlarged vertically over the posterior surface of the kidney, and the fat being pushed outwards or removed the posterior surface of the kidney is exposed. The renal fat is then partly removed and partly pulled forwards with the perirenal fascia and the kidney is gradually shelled out and can be readily brought out of the wound. The posterior part of the wound is then thoroughly cleared from fat till the diaphragm, the psoas, and the quadratus lumborum muscles are fully exposed. The fatty capsule and the posterior part of the renal capsule are thoroughly turned aside (it is well to take away a good deal of the fat in case it should get in between the kidney and the muscles and prevent firm adhesion). The kidney is then turned forwards and incisions are made through the capsule on the posterior surface, as follows: A vertical incision running upwards near the inner side of the posterior surface and curving outwards at the upper part towards the upper and inner part of the posterior surface, and then a transverse incision running across the kidney at the lower end of this vertical incision. The capsule can be stripped off as far as the convex border of the kidney. From each end of the lower transverse incision a small vertical incision is made through the capsule, and then this portion can be pulled down so as to hang downwards from the lower pole of the kidney. The fatty capsule and loose fascia being prevented from getting in between the kidney and the posterior muscles, the kidney can now be turned back and placed exactly in the position which is desired; it can be put up as far as one wishes, and also at the proper distance from the spine. By means of strong catgut or silk stitches the vertical piece of capsule is now stitched down to the muscles behind, taking care not to stitch it too tightly, because the natural tendency of the kidney is for the outer border not to be so closely in contact with the the posterior wall of the abdomen as the inner border is. The piece of capsule which is hanging down from the lower pole is then stitched to the muscles below the kidney, and in this way the raw surface of the kidney is kept in contact with the surface of the muscles behind and acquires firm adhesion to them. The capsule at the lower part is strengthened by stitching down the detached portion of the renal capsule so as to form a sort of ledge on which the kidney rests. The kidney having been fixed, the peritoneum is then allowed to fall back into position and a few stitches will generally bring the deeper muscles together while the external oblique is closely united by two or three mattress sutures and subsequently by a continuous catgut suture.

Apart from the case with which one can fix the kidney in its proper position by this operation, there is another great advantage in this incision. Everyone is familiar in cases of movable kidney with the difficulty of being certain that all the symptoms are entirely due to that mobility. With the ordinary lumbar incision one cannot as a rule make any investigation of the condition of these other parts but with the incision described it is quite easy to do so. By making an incision into the peritoneal cavity after having exposed the kidney, one can ascertain the condition of the various parts. And not only can these conditions be diagnosed, but some of them can also be remedied without making a further incision. For example, it is, of course, quite easy to stitch the liver up to the edge of the ribs so as to obtain adhesion between that organ and the diaphragm. And also, the colon can be fixed up to the under surface of the liver at the same time. And then the various conditions in connection with the gall-bladder are quite accessible by extending the incision.

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Much better results will be obtained from such application of exact remedies to meet the conditions they exactly remedy than from the ignorant combination of cathartics without regard to the specific action of each, and the administration of such remedies in very large doses which soon exhaust the irritability of the intestines and require constantly decreasing effects.

In persistent anal pruritus, usually dependent upon internal "piles" the Hybisco Ointment (Abbott) will be found an excellent thing.

All these remedies may be obtained of The Abbott Alkaloidal Company, Chicago.

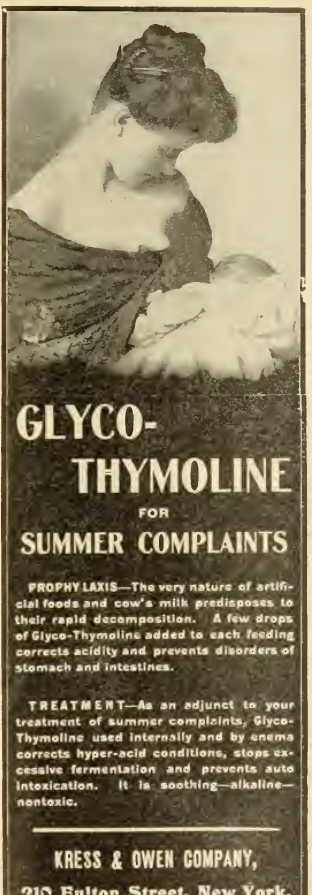
Gastro Intestinal Irritations and Their Treatment.

Brose S. Horne, M. D., Ex-Physician Indiana State Prison, Marion, Indiana.

Enteritis is only a clinical expression and the disease is due to many causes. The most fruitful cause is drinking water contaminated by the discharges from diseased patients. Exposure to cold, bad food, through nervous influence and direct irritation of the mucous membrane, may produce individual cases of the catarrhal form. In army life this disease is quite frequent and is described under the name of dysentery. In crowded places, as in the army or in prison, epidemics will arise and frequently the whole mass of humanity will be taken down with this dreadful disease.

There are many micro-organisms found in the discharges from these patients. One is the amœba dysenteriæ, claimed by some to be the main cause, but it is doubtful if any one organism can be pointed out as the specific cause of the trouble. It is a settled question now that some poison introduced into the system produces these gastro-intestinal troubles such as gastro-interitis, entero-colitis, epidemic dysentery, etc.

We need not dwell on either particular nosological classification as the treatment is about the same in either one of the entities. The common symptoms met with in these disorders are about the same. They will commence with a light form of gastro-intestinal catarrh. After the stage of incubation which may last from a few hours to a few days, symptoms of dyspepsia and diarrhœa set in. There is anorexia, heartburn, nausea, vomiting, borborygmus, often pain in the abdomen and copious fluid discharges. In some cases there is violent griping and colicky pains with a sensation of depression. The patient in some cases is unable to leave the stool. The tenesmus is frightful, making the patient not only a misery to himself but to his friends as well. Often the patient will sit at stool hours at a time until he becomes so faint and weak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that he cannot leave it without assistance. There is great depression in these cases. The constant nausea, with occasional vomiting, and tenesmus causes great prostration.

During the winter of of 1901-1902 an epidemic started in Michigan City, Indiana. At that time the writer was physician of the Indiana State Prison. Hundreds of cases developed; the inmates of the prison were infected as well as some of the officers of the institution. The general suffering was great indeed. In these cases all of the symptoms were those of a case of poisoning. The skin is hot and dry, the tongue is heavily coated, the face soon wears an anxious expression, the abdomen becomes distended; there are constant discharges of mucus, blood and pus, some cases would go to stool as high as two hundred times in twenty-four hours. In the worst cases the patient would sit or lie upon the bed most of the day not caring apparently whether he lived or not. The first discharges, as a rule, in these cases were like the white of an egg; later on they would be tinged with blood. The general symptoms were alarming. At times a person would be tempted to call the case cholera. In some cases there would be fever and in others there would be none. To give some idea of the cases I will cite one:

John S., age 32, white was taken sick with a discharge of mucus from the bowels. He had tenesmus, griping pains, went to stool one hundred and twenty times the first twenty-four hours. He was given the ordinary treatment without any relief whatever. After the first forty-eight hours his bowels were washed out wi h a solution of hot water and Glyco-Thymoline two ounces to each pint of water. He was given a few doses of Dover's powder and a half a tablespoonful of Glyco-Thymoline in a little water every two hours. In forty-eight hours from the beginning of this treatment he was up and around. The constant vomiting he had disappeared after the third dose of Glyco-Thymoline.

Electrical Therapy in Arteriosclerosis. —Libothe (Journal de Neurologie) says by the term arteriosclerosis he understands a fibrous transformation of the arteries, with the other vessels at times affected. It may be local or general. The thickening of the vascular coats may be patchy or diffuse. In the large arteries the three coats are affected, but especially the middle coat. In the visceral arterioles it is especially the intima which undergoes change. The causes are microbic, toxic and mechanical. Libothe believes that continued hypertension determines the arteriosclerosis, such hypertension being due mostly to toxic influences. After a review of the symptoms which occur as the different organs are most affected, he considers the electrical therapy. The author states that we must admit that the means hitherto at our disposal have been of little use in the treatment of this disease. Nor is the method he advocates applicable to advanced cases, where the treatment can only be palliative.

His treatment rests on the use of the high-frequency current. Its beneficial effect depends on its great tension, its great intensity, its great penetration, its periodicity, and its great inductive power. He argues that the body cells must be greatly affected by such a current. It has a double action. Firstly, directly on the cells; secondly, on the vaso-constrictor and vaso-dilator nerves.

The writer compares these electrical waves to certain forms of sound and light waves which affect us, but are not apparent to our senses.

The author mentions the physiological experiments showing greater chemical activity of the blood under the influence of the current. The amount of CO_2 is more than doubled, and animals under the influence lose weight rapidly. The urine shows a better oxidation of its contents, together with an increase of the latter.

Clinically, the author says, one cannot deny the great general improvement produced by the current—as evidenced by improvement in the appetite and digestion and by the improvement in rheumatic conditions. The writer states that it has now long been recognized how easily articular nodules, arthralgias, rheumatoid arthritis and gouty deposits can be favorably influenced by this current properly applied.

The writer mentions several cases cured by the treatment. A case of chronic eczema with asthma, treated otherwise without success for years, was promptly cured. A like result has been obtained in chronic rhinitis and catarrh of the Eustachian tube. Libothe says that the current has a special effect on the vaso-motor nerves. The fact is incontestable that it combats vaso-constriction, and so diminishes the arterial tension, except where renal sclerosis is marked. He is sure that even in advanced cases the lessening of the contraction of the vasa vasorum has a good effect.

The Lower Segment of the Uterus.

Cyrille Jeannin distinguishes the inferior segment of the uterus as the isthmus, or lower third of the fundus. It is of great importance pathologically and normally in pregnancy. Its walls are much thinner than those of other portions of the uterus. In front it is thinner than behind. Its lower limit is the internal os. Its thinness pre-

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disposes to rupture of the uterus. Its form varies with the presentation of the fetus. During pregnancy it lends itself to the development of the fetus by stretching. By some it is supposed to be the cause of the beginning of labor. Its dilatation by a rubber balloon is a most efficient means of inducing labor. In the early part of labor it contracts, but later remains inert. During pregnancy the implantation of the ovum on this segment is a frequent cause of abortion and of hemorrhage in placenta previa. During labor the adhesion of the ovum to this segment is a cause of very slow dilatation of the cervix.—La Presse Medicale.

Pericardial Adhesions of Tuberculous Nature and Cirrhosis of the Liver in Children.

Hutinel describes a somewhat rare condition in which a tuberculosis of the bronchial and mediastinal glands is communicated to the pericardium, producing adhesive pericarditis. Later cirrhosis of the liver follows, accompanied by ascites, and a fatal issue from heart failure ends the case. He calls it cardio-tuberculous cirrhosis. It begins sometimes insiduously with bronchitis and wasting. At other times it is more acute, and begins with a pleurisy. Hypertrophy of the liver follows, the consistency of the organ being firm. Then appear circulatory troubles. The lips become cyanotic and the face violet, as in congenital heart trouble. There is dyspnœa, but no cardiac signs can be elicited. The urine is abundant and albuminous. The tuberculous condition has remained latent, and it is the liver signs that attract all attention. The pleura and pericardium are adherent, and the heart apex does not move with the beat. Treatment has so far failed to prevent a fatal issue.—Le Bulletin Medical.

Primary Cancer of the Urethra in Women.

Andre Boursier gives two cases of primary cancer of the urethra, a somewhat rare disease. These cancers are usually of pavement epithelium, which may be tubular. It is accompanied by pain, difficult urination, pollakiuria, and final retention of urine. In some cases incontinence and pain in coitus have been observed. The treatment varies with the depth to which the disease has invaded the tissues along the urethra. When it has involved only the tissues below the symphysis, that is from ten to twelve millimeters in length, it may be removed by the bistoury, an incisicision being made wide of the growth, and the mucous membrane of the urethra sutured to the vaginal wall to reconstitute its orifice. When the whole urethra is involved the growth may be still removed, but the operation is much more difficult. When the growth has involved the neck of the bladder operation becomes impossible. In any case the results are that incontinence remains to a greater or less degree.—Journal de Medecine de Bordeaux.

Method for the Prompt and Easy Demonstration of the Reticular Structure of Nerve Cells.

C. Golgi states that the internal reticular structure of the nerve cells described by him has been little studied hitherto on account of the difficulty of demonstrating it by staining agents. He describes a new method of staining that is easy of execution and gives excellent results, and that has been made use of for a year in his laboratories. It consists of a modification of the Silver reduction method. It includes fixation for from six to twenty four hours in arsenious acid, 1 per cent. solution, using 50 parts of the solution, 40 parts of distilled water, 0.5 to 20 parts of alcohol, and 21 parts of formalin. Next the tissue is placed in 1 per cent. silver nitrate solution for some hours. The third step is to develop it in hydrochinone. Sections are made after embedding in celloidin or parafin. Fixation of the sections in chloride of gold and hyposulphite of soda follows, and the sections are bleached by Veratti's method; successive coloration of the nuclei ends the process.—La Riforma Medica.

Prolapsus Uteri in Nulliparae.

Paul Reclus says that prolapsus uteri in young nulliparæ who are unmarried is generally of congenital origin. It is seen in girls of infantile aspect, with irregular menstruation, ill-developed muscles, and ptoses of the abdominal organs. Here the peritoneum is not at fault and its repair or suture is of no value as a therapeutic measure. The origin of the trouble is due to a bad development and weakness of the uterine ligaments, especially the round ligament. This allows the uterus to descend and the Alexander operation is found to give no benefit because the ligament is found to be weak and to stretch easily. The only operation that is of benefit is that of ventrofixation, one that is not generally advisable in women who may marry and become pregnant.—Gazette des Hopitaux.

Hematic Cysts of the Breasts.

Pons describes an interesting case of cyst of the mammary gland that required enucleation. These cysts occasion no inflammatory reaction, but when the fluid is

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d.ained they rapidly occur. They are lined with pavement epithelium. The contents consist of a fluid that is serous, mixed with blood, sero-mucous, or oleagenous. The pathogenesis is uncertain. Most authors refer them to an obliteration of the milk ducts, at their excretory extremity. The blood contained seems to be the result of injury to the mammary gland. Or it may be extravasated as a result of the congestive condition that arises in the breasts at menstruation. Another more modern theory refers them to an inflammatory lesion of the gland. The wall of the cyst removed by the author consisted of layers of fibrous tissue, the cavity being lined with cubical and plorostratified epithelium. The surface of the cystic membrane was covered with villosites, each one containing a dilated vessel. These vessels frequently had undergone extravasation of blood into the villosities. The structure resembled a fibroadenomatous tumor. This would show that extirpation was necessary on account of the danger of cancerous degeneration.—Gazette de Gynecologie.

Histology and Pathogenesis of Condyloma Acuminate.

Pietro Stancanelli has examined many specific condylomata and compared their histology with that of condyloma acuminata, and as a result gives us the following conclusions: This growth is a product of chronic proliferation which begins in the mucous corpuscles of Malpighi, resulting in infiltration and proliferation of the papillæ; a new formed tissue of embryonal type arises, which tends to organization and histological differentiation. From their mode of origin and tendency to necrobiosis the beginning is in the mucous bodies. The tissue is an inflammatory-hyperplastic type which tends to organization. It is furnished with a peripheral nervous reticulum fibrillar and ganglionic. Bacteriological and bacterioscopic researches indicate that it is not caused by bacteria. The cause is probably an inflammatory substance of chemical nature coming from without and penetrating through the epithelial strata.—Giornale Internazionale delle Scienze Mediche.

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delirium tremens. In these patients in whom the commercial bromides should not be exhibited on account of their usual irritating action on the stomach already seriously affected, Peacock's Bromides will fully meet the requirements.

Alcohol Injection Treatment in Neuralgia and Spasm.

Harris (Proceedings of the Royal Society of Medicine) after a review of the still scant literature on this subject, thus describes his technique of injection based on a careful study of clinical law and on the results of injections of methylene blue in 50 subjects afterward dissected to determine the exact seat of the deposit of the eye.

For the injection of the inferior maxillary nerve at the foramen ovale a moderately stout, short-pointed needle, 1.2 millimeters in diameter, is pushed through the cheek below the zygoma, as low as possible through the bottom of the sigmoid notch in the lower jar, the point being directed straight inward and upward until it hits the under surface of the sphenoid bone at the

base of the skull. The point is then gently lowered by raising the handle, and the edge of the foramen ovale is felt for at a depth of from 1½ to 1¾ inches, according to the size of the individual.

Harris's results have shown him that in practically every case the needle can be made to pass through the foramen into the Gasserian ganglion if necessary.

When attempting to inject the inferior maxillary nerve at the foramen ovale, if the needle is passed straight in and too horizontally the wall of the pharynx will be pierced at a depth of 2 to 2¼ inches. If the point be directed too far backward the middle meningeal artery may be injured, while if the needle be passed too far through the foramen ovale, to the depth of 2¼ inches or more, the cavernous sinus and the internal carotid artery within the skull may be damaged.

For the second division of the fifth nerve the injection is made below the orbit into the infraorbital foramen, taking care to use no force when inserting the needle, or the antrum may be pierced. The direction of the needle must be upward and outward. Besides injecting the infraorbital nerve, the superior maxillary nerve is also injected deeply at the point of its emergence from the foramen rotundum in the sphenomaxillary fossa. To reach this point the needle is pushed through the cheek in front of the coronoid process and below the malar bone, a little in front of the line of the posterior border of the orbital process of the malar bone. The needle is pushed upward and inward until the front edge of the external pterygoid plate is reached. The point of the needle is then passed in front of this bone so as to enter the pterygomaxillary fissure, through which it is pushed, always at the same angle upward, until the nerve is reached. This will vary in depth from 1¾ to 2⅛ inches, according to the size of the skull.

Besides a certain degree of risk of vascular injury there are two most serious dangers to beware of after the point of the needle enters the sphenomaxillary fossa, namely, the danger of piercing the optic nerve or of injecting it with alcohol; and secondly, of passing the needle into the sphenoidal fissure and there damaging the oculomotor nerve. The optic foramen lies not more than three-eighths of an inch beyond the orifice of the foramen rotundum in the same straight line, and it is therefore imperative never to sink the needle to a greater depth than 2 inches, or even 1¾ inches, in the case of a small skull, as of a woman 5 feet 2 inches in height. When the nerve is reached the syringe, ready filled with 80 per cent. alcohol, is fitted tightly on to the needle, and from 15 to 20 minims of 80 per cent. alcohol injected slowly, a few drops at a time. If no general anesthetic has been given, as is the practice of the Continental and American workers, the patient will cry out with pain as soon as the point of the needle reaches the nerve, and the further injection of the alcohol causes a sharp burning pain over the area of distribution of the nerve, a pain which is repeated with each push of the syringe. The writer prefers to have a general anesthetic given before puncturing the skin, and when his needle is approximately in the correct position for making the injection he allows the patient to come partially round from the anesthetic. Moving the point of the needle then against the nerve will provoke a reflex spasm of that side of the face, as though pain were felt, and the injection can then be made safely, without the patient remembering anything of the pain afterward.

There are other foramina which can be injected with the greatest advantage, namely, the supraorbital notch or foramen, infraorbital foramen, mental foramen, inferior dental foramen, and the palatine foramina, both anterior and posterior. The inferior dental foramen on the inside of the ramus of the lower jaw may be injected with advantage in cases in which the attacks of pain are limised to the lower jaw, without affecting the territory of the lingual nerve, thus avoiding the numbness and loss of sensation in the tongue which would result from injection of the inferior maxillary nerve at the foramen ovale. There are two routes to the inferior dental foramen, either inside the mouth or outside the cheek, round the ramus of the mandible. In either case a stout curved needle is necessary; Schlosser practices the external route, though there is a real danger with this method of producing facial palsy from the alcohol running backward along the needle.

A successful injection, besides producing a sensation of numbness and burning for some hours over the area of the nerve destroyed, always causes a certain amount of edema and a sensation of stiffness of the parts. The burning sensation passes off after a few hours, the edema disappears after two or three days, whilst there is left behind a sensation of numbness; and there is anesthesia to touch and pin-prick on the skin and mucous membrane, corresponding to the anatomical distribution of the nerve. This will last for weeks or months, according to the amount of destruction of the nerve, but will generally begin to diminish after three to four months. The attacks of pain cease immediately after injection, and the delight of the patients on finding they

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can talk, eat, use their false teeth, or rub the face, is proof that the nerve has been successfully reached. An accident that will occasionally happen is a hematoma from puncture of the artery issuing with the nerve out of the supraorbital, infraorbital, or mental foramina.—Glasgow Medical Journal.

Incisions for Operations on the Upper Abdominal Organs.—Don (Brit. Med. Jour.) states that incision through the rectus has the advantages of giving ample room, leaving a firm cicatrix, and of not interfering with the nerve and blood supply. The skin and anterior sheath are divided a fingerbreadth to the right or left of the middle line from opposite the seventh costochondral junction to the umbilicus. The sheath is dissected off the muscle on the inner side, and the muscle freed by blunt dissection from its posterior sheath, and retracted outward as far as possible. The posterior sheath and peritoneum are then incised as far out as convenient, and parallel to the whole length of the skin incision. Through this opening the whole of the upper abdomen can be explored, and if operation on lateral organs is deemed advisable, the horizontal limb is then added. The best point for dividing the rectus is at its umbilical intersection. This intersection is readily exposed by prolonging the vertical incision if necessary, and from the lower end of this a curved incision is made upward and outward to the lowest part of the costal margin. This divides skin and superficial fascia only. The muscle with the skin and anterior sheath is now raised up with the left hand, and the whole cut straight outward through the middle of the fibrous intersection till the whole thickness of the rectus is divided. The deep epigastric, or a branch, may bleed and require securing. The posterior sheath is divided half an inch higher up for ease in suturing later. In very fat subjects the ends of the skin incisions are prolonged and gradually shallowed out their ends. This gives considerably more room, and does not weaken the cicatrix in the least. When turned up the base of this flap lies along Kocher's incision. The costal cartilages can be cut from the peritoneal side if necessary for operations on the spleen or cardiac end of the stomach. With the sandbag under the patient excellent exposure is got, and the edges of the opening are not too rigid. Only one retractor is required, and when the liver and gallbladder are rotated upward this, too, may be dispensed with. There is thus no danger of damage to the organs. This sickle-shaped wound is closed in layers with silk, cotton, or celluloid thread as follows: The sandbag is re

moved, and the vertical peritoneum, together with the posterior sheath, is closed first. Efficient drainage may be secured through the upper end of the lateral wound before the peritoneum and transversalis fascia are brought together. When the inner end is reached the rectus is sutured at the fibrous intersection where the suture holds well. The anterior sheath is made to overlap a little, and the fibres of the external and internal oblique and transversalis muscles are gently approximated. The skin is closed by celluloid thread or Meckel's clips.

Treatment of Ulcerative Colitis.—Dunn in the Medical Lancet reports that in the Berkshire Asylum, Wallingford, they have for some years past been so convinced of the superiority of the treatment of ulcerative colitis by creosote and ol. morrhuæ that it is now exclusively made use of. He has no hesitation in saying that it relieves the symptoms more quickly and shortens the course of the disease more effectually than use other, and there has been less mortality since adopting this method. The dose used is as follows: Creosot., ℥ iii; ol. morrh., ʒi, is given three times daily on the first day of the disease, castor oil having been previously administered. This is increased by ʒi daily until on the fourth day the patient is taking creosot., ℥xiii; ol. morrh., ʒss. This is continued until the termination of the disorder.

Eczema in Infants.—Mendelsson (Munch. Med. Woch.) states that, according Finkelstein, the eczema of infants is due to disturbed assimilation of the salts in milk; its treatment therefore is not local, but must consist of dietetic measures. The best diet is poor in salt but rich in proteid and fat, and is prepared by removing the salts of milk washing the casein in water and then mixing it with diluted whey. Mendelsson obtained very good results with Finkelstein's diet, the eczematous conditions disappearing more quickly and surely than with the older local treatment. The loss of weight noted on this diet should not stop its use, as it is caused by the rapid loss of water with the removal of salts in the tissues. The diet, however, should be tried only in such children who can bear fat well; such infants are usually large for their age, have a pasty skin and are prone to manifest not only eczema but other phenomena of "exudative diathesis." They stand the withdrawal of salt very well if it is not continued too long after the curative effect upon the eczema has been noted.

Ureteral Surgery.—Garre (Deutsche Med. Wochensch.) believes that in cases in which the ureter is completely blocked by a calculus no time should be lost with conservative methods, but the ureter exposed by abdominal incision, opened longitudinally, and the calculus gently expressed. A sound is then introduced to detect any other calculi or strictures and the ureteral wound closed by a few fine silk sutures. It is better not to imbed it or fix it in the surrounding tissues, since kinks and cicatricial induration may result. If the ureter is obstructed low down it may be exposed through the vagina or by perineal or perisacral, incision, though the latter is not to be recommended. If the calculus is situated near the bladder cystotomy is indicated. In cases of injuries of the ureter early operation is necessary, although the diagnosis is often uncertain. The retroperitoneal route should be selected so as to avoid urinary infiltration. In gynecological operations if the ureter is injured the wound should be closed at once by two fine silk sutures, or if torn across, the sutures are preferably to be applied in an oblique circular rather than a transverse direction. Anastomosis may give rise to obstruction in the urinary flow, and it is better to invaginate the proximal end into the vesical end of the ureter. From 3 to 5 cm. of the ureter can be resected, this being compensated for by the descent of the kidney. Suture of the divided ureter low down near the bladder is technically impracticable and is commonly replaced by intraperitoneal implantation of the ureteral stump into the bladder. Apart from injury, implantation is also indicated in cases of prolapse, tumors of the bladder, ectopia vesicæ, etc. If contraindicated for technical reasons it may be replaced by (1) extirpation of the corresponding kidney, if the other is healty; (2) anastomosis of both ureters; (3) nephrostomy or implantation into the abdominal wall; (4) implantation into the intestine; and (5) artificial replacement of the ureter by tubes. In regard to these procedures Garre remarks that anastomosis of which ureters is very difficult and failure would imperil both kidneys and cause death. In intestinal implantation of the ureter, to avoid the risk of pyelonephritis, the ureter has been implanted into an excluded segment of the sigmoid.

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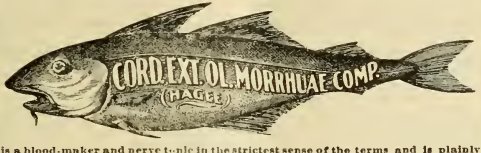

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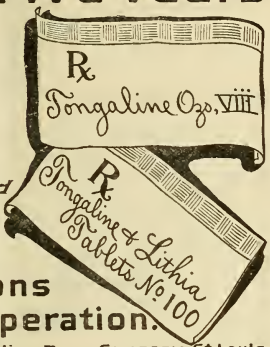

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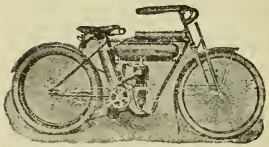

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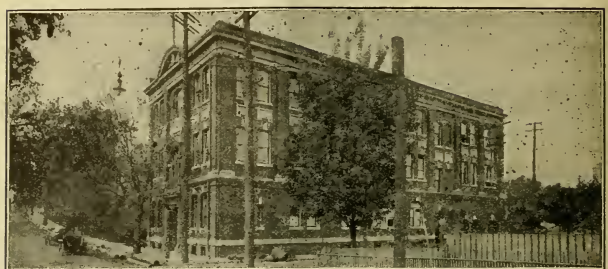

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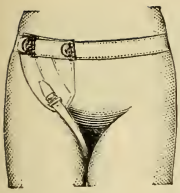

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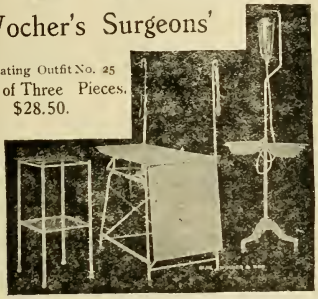

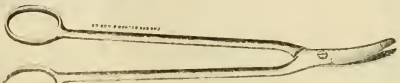

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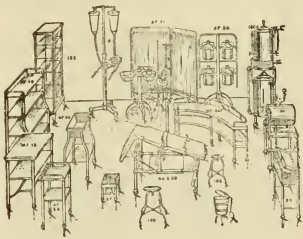

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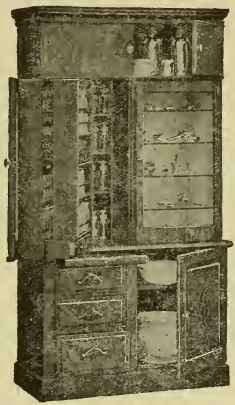

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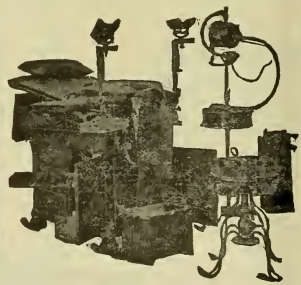

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The Charlotte Medical Journal

VOL. LX CHARLOTTE, N. C., AUGUST, 1909. No. 2

Some Recent Views Concerning the Nature of Typhoid Fever.*

By L. B. Newell, A.B., M.D., Charlotte, N. C.

We are approaching the Utopian threshold of accurate knowledge with unprecedented rapidity; whether it shall ever be reached we do not know; certainly it is little to be desired that man will ever have come to dwell in those Elysian Fields where there need be no more work or effort. Would life be worth the living if we knew all and there were no new "worlds to conquer?" Relatively speaking it has not been long since typhoid fever, as a distinct disease, emerged from the obscurity of confusion with a number of other fevers which bear a more or less close resemblance. Only a few decades ago Eberth isolated the *bacillus typhosus* and described it so accurately that succeeding investigators have been able to add but little to his observations concerning the active cause of the disease. However, little by little, our knowledge has extended until modern conceptions of the disease differ in many ways from those which obtained when even some of the younger members of the profession entered the ranks as practitioners. Some will be perfectly familiar with what I shall say in this paper; others perhaps will not agree with the views advanced; but in any case it can do no harm if I attempt to present—imperfectly enough perhaps—some thoughts along the line of the more recent developments in the study of typhoid fever.

Perhaps, indeed, what I shall have to say is not all true: at least, however, it is a fascinating theory upon which we may account for some phases of what may be called the pathological physiology of one of the commonest of all diseases. By contrasting some of the older ideas with the new it will doubtless be the easier to make the latter clearer.

For a long time it was believed that the bacillus, after having been taken into the intestine, multiplied and developed its poisons chiefly in the lumen of the gut and in the lymphatic tissues of the bowel wall, and that the poisons absorbed into the body itself caused the constitutional symptoms. It was later discovered that the germs could be found in other organs and tissues in practically all cases. This established the fact that the blood must convey the bacilli from the intestine to the various parts inside the body, for we may consider that the gastro-intestinal tract, including gall-bladder, as well as the urinary bladder, ureter and pelvis of the kidney are not within the body but really outside. It was believed that the micro-organisms did not pass into the blood in any considerable numbers, and that it was only late in the course of the disease that this happened. Within the past few years, however, we have come to realize that typhoid fever is not a local disease in the sense that specific micro-organisms develop in portions of the body as is the case in diphtheria, but that it is really a bacteræmia—a general infection of the blood—and that the intestinal and mesenteric lesions are merely local manifestations of the infection. The lymphoid elements of the intestines, carrying out the function of the lymphatic tissues, acting simply as outposts, take up the bacteria and, in their efforts to destroy them, become inflamed just as any lymphatic gland does into which an infected area drains.

It is not necessary to repeat what many of us know already: that the presence of typhoid bacilli in the intestine does not necessarily mean that the patient has typhoid fever, for there are many individuals who are apparently healthy, but who nevertheless are carrying constantly millions of typhoid bacilli within their bowels. For a person to manifest the symptoms of typhoid fever it is necessary for the bacilli to enter the blood. And indeed something more is necessary, for it appears that so long as these micro-organisms are alive, i.e., so long as they are not attacked and destroyed by the cells of the body, no symptoms are manifest. In proof of this one might cite the fact that typhoid bacilli have actually been isolated from the blood of individuals who gave absolutely no evidence of any infection at the time, but who subsequently come down with the disease. In other words bacilli were found to be present in the blood during the period of incubation —a period which, in the light of such evidence, might be counted by days or weeks or months or years. It can readily be seen, however, that this could be demonstrated relatively infrequently because of the few opportunities for such investigation.

Now, with these ideas before us let us ask and answer the query: what is the essential nature of typhoid fever? Instead of being an intoxication resulting from the absorption of toxins produced by the bacilli in the

*Read by title before the Medical Society of the State of North Carolina, Asheville, N. C., June 15-18, 1909.

intestine, typhoid fever is an intoxication produced during the struggle between the typhoid bacillus on the one hand, and the body cells and juices on the other. The typhoid bacilli produce a poison which is retained within the micro-organism, i.e., it is an *endotoxin*, and it is only by the death of the bacillus that it can do harm, for with the destruction or breaking down and disintegration of the bacteria the toxin is liberated and then can exert its inimical effects on the body cells. In this respect the typhoid bacillus differs fundamentally from the organisms of diphtheria and tetanus. And in typhoid fever we do not have therefore an antitoxic immunity but one directed against the bacillus itself. In other words the juices and cells of the body attack and kill the bacteria and in so doing actually do something which is harmful to the body. "It is a little disconcerting to be told that the more quickly the body kills and disintegrates the bacteria the more severe may be the symptoms of the disease; this seems, however, to be a necessary assumption when all the facts are considered, though until we learn how to utilize or control a high bactericidal power of the blood the physician may not be able to gather many grains of comfort from the reflection that the blood of his sickest patient may have the greatest bactericidal power" (Barker).

On this theory let us now attempt a few inferences as to what may happen when typhoid bacilli have entered the blood of an individual, and in considering the toxic effects of any substance which acts as a poison to the tissues we must not forget that the body possesses to a greater or less extent the power of eliminating these undesirable products by way of the bowel, the kidneys, the skin and the lungs. Those which can be gotten rid of rapidly enough will necessarily cause little disturbance. The severity of an intoxication will therefore depend upon several factors, viz: The rapidity of the intoxication, the size of the dose, the virulence of the poison and the ability of the eliminative functions to throw it off. In the case of typhoid infection let us suppose that the bacillus is neither destroyed nor eliminated, but continues to multiply. What happens? The immediate effect may be *nil*, for, according to our theory, there is no intoxication until there is bacterial destruction. It is, therefore, conceivable that the body should contain bacilli in large numbers and still show no signs of disease. The individual remains well. That this assumption is true is proven by the fact already mentioned, that bacilli have been cultivated from the blood of persons who had been exposed to the disease, but had as yet shown no signs. This has been spoken of as the "latent" development of the bacilli, and it is what goes on very probably for several days previous to the occurrence of a relapse as well as at the beginning of the disease.

It can now be seen what we meant when it was said that a rapidly and energetically acting immunity might be actually inimical to its own proper purpose, because it set free too much intracellular poison (Endotoxin) within too short a space of time. The powers of elimination are limited and are furthermore crippled by the action of the poison so that excessive toxin production means rapid accumulation within the body. On the other hand, if, with the same eliminative powers, the toxin production be spread out over a period of several weeks instead of one week then the intoxication will be comparatively mild and not perhaps dangerous to life.

The opsonic theory, of which lately we have heard so much, teaches that in the majority of bacterial diseases the power of the blood to destroy the germs is below normal. In typhoid fever the opsonic index is above normal. Patients do not die, apparently, because this protective function is diminished, but possibly because there is too great a bactericidal power in the body. In these days when we are hoping for such great things in the way of artificially produced immunity, typhoid fever introduces the problem not of increasing but of decreasing the physiological immunizing power of the blood. Perhaps we might account for the good effects of the cold bath in typhoid fever on this idea. It may be that the destruction of the invading germ, whether it be through bacteriolysis or phagocytosis, is accomplished largely through digestive ferments, whose action becomes much impaired in the presence of lowered temperatures. The cold bath, then, inhibits the action of the destructive ferments over the large area of the skin, thus diminishing toixn liberation, the temperature drops, the patient feels better and the tissues have a few hours' respite from hyper-intoxication. For the same reason drugs which would lower cellular activity might well be indicated. Quinine is such a drug and its use might possibly be justified by such reasoning.

Prof. Vaughan, of the University of Michigan, has employed, in a series of cases of typhoid fever, a non-toxic residue of bacilli grown outside the body. By inoculating patients with these substances it appeared that the cases were not so severe, although they ran a somewhat longer course. Richardson, of Boston, has confirmed these observations. Probably by introducing this non-toxic residue with its specific affinity

for typhoid anti-bodies the destructive action was diverted from the typhoid bacilli themselves, less endotoxin was liberated and the intoxication was therefore milder.

This picture of the essential nature of typhoid fever makes a number of phenomena often observed in the disease more rapidly comprehensible. Sometimes one observes a curious drop in the temperature which, under routine treatment, occurs without apparent cause. This might mean that a period of over-activity on the part of the tissues is followed by a resting stage in which no bacilli are destroyed, no toxin set free, and so the temperature must fall. A chill, though rare, may represent a sudden destruction of bacilli as contrasted with the more evenly distributed production of toxin which occurs in the majority of cases. A sudden onset is often associated with a chill, the coarse of such cases is commonly very severe and the mortality is high. As we have already said it seems probable that, in such instances, the protective mechanism acts too well and that the victim is overwhelmed as a result of his own zeal. We have been in the habit of thinking of relapse as a re-infection; but it is possible that during the afebrile period the bacilli are still present, perhaps increasing in numbers in the absence of resistance, and that it is only when the body takes up the work of destruction that symptoms reappear. It may be that in this connection the hypersusceptibility produced by a primary attack has much to do with notably quick rise of temperature often seen in relapses as contrasted with the typically gradual onset of the first attack.

Lastly, we may explain the characteristic temperature curve of typical cases by employing our theory. At first there is a step-like rise. At this time more endotoxin is being set free than is eliminated; it collects in the body, the degree of intoxication receding slightly each morning, because of the natural tendency to lowered function during this part of the twenty-four hours, only to go still higher as a result of the day's increased activities: consequently the effect is cumulative.

Having reached a high level—the fastigium—the intoxication is so intense that the comparatively small amount of poison excreted has no appreciable effect on the general condition. In the latter weeks, however, when there are comparatively few bacilli left in the body, then, although the daily toxin production (liberation) is sufficient to carry the temperature up to a high figure, the degree of intoxication is really small and is more than counterbalanced by the toxin excretion. As a result the receding morning temperature is seen. Gradually the elimination exceeds the production of poisons until finally the emunctories have entirely freed the body of them. Convalescence is then established.

In these views I make no claim to originality—they are merely the results of study of some of the more recent contributions on the ever fruitful subject of a disease which is universal, and therefore a never-ending source of serious thought and study.

Bibliography.

Richardson, Boston Medical and Surgical Journal, May 7, 1908.

Barker, Charlotte Medical Journal, May, 1908.

Adami, Prin. of Path.

McCrae, Osler's Modern Medicine.

McFarland, Pathogenic Bacteria.

Mabee, Boston Med. and Surg. Journal, June 8, 1908.

Pringle, Dublin Medical Journal.

Conradi, Klin. Jarb., 1907.

Conradi, Deutsche Med. Wchnschr, Oct., 1907.

Clark, J. A. M. A.. Dec. 26, 1906.

Vaughan and Hoag, Cellular-Toxins, 1908.

Busse, Munch. Med. Woch.

Clark and Simmons, Jour. Infec. Dis., January, 1908.

Clinical Notes on Sanatorium Work.

By J. C. Walton, M.D., Richmond, Va., Physician-in-Charge of the Hydro-Electro-Therapeutic Sanatorium.

No explanations or apologies are necessary for presenting a clinical paper illustrating therapeutic progress before an audience that has a national reputation for scientific and practical work. One great advantage of physiotherapy is the absolute impossibility of producing any effects which would interfere with the administration of any other therapeutic procedure, and they should always be accompanied by appropriate hygienic, dietetic and medicinal measures.

High Frequency Currents.

Careful clinical studies, embracing not only my own work, but the opportunity of seeing the work of many eminent clinicians, have thoroughly convinced the writer that for the relief and treatment of hypertension, arteriosclerosis, tuberculosis, obesity, chronic nephritis, neuritis, neurasthenia, and other disorders of metabolism, that the high frequency currents come nearer meeting the therapeutic indications than any other methods of treatment.

The high frequency apparatus giving the currents D'Arsonval, Tesla and Oudin, can be excited from a coil or a large static ma-

chine of 16 to 20 plates. The majority of clinicians prefer the static machine, as they consider the quality of the current generated much superior to that obtained from the coil; and this is in accordance with my own experience. I use in my work a 20 plate static machine running at full speed, and ordinarily administer a current of 200 to 500 millimeters, for twenty minutes, the patient lying on an auto-condensation couch with a large metal plate over the abdomen. The patient receives millions of oscillations per second, which produce a feeling of well being, and without pain or discomfort. The blood pressure is reduced from five to twenty millimeters, the temperature is raised, the secretions are augmented, the system is energized, the functional activity is stimulated, and the proper relation between waste and repair is better maintained. The elimination of effete material takes place more rapidly, the nutrition is improved, and nature is gradually enabled to resume her normal functions. I have record of many rather advanced cases of arteriosclerosis successfully treated by the D'Arsonval current.

High frequency can be relied upon to reduce arterial tension, and also to increase the elimination of the urinary solids, thus opening up a great sphere of usefulness in arteriosclerosis, and in all conditions of nephritis and kidney incompetency. A persistent low specific gravity of the urine is of far more serious import than the presence of albumen and casts. Nothing approaches the results obtained from the D'Arsonval current in the above conditions.

In tuberculosis, by use of the cataphoresis obtained from the high frequency currents (Oudin current), you not only get your drug applied right on the spot, thus coming into direct contact with the diseased tissues with the resulting hyperemia and improved blood supply, but you get in addition to this a most powerful effect on local and general metabolism. The high frequency current increases metabolism, relieves congestion, stimulates the vasomotor system, and promotes nutrition and vital resistance.

The results of high frequency in tuberculosis have been most gratifying and encouraging. Dr. Goss, of Adams, N. Y.; Dr. McPharlan and Dr. Craft, of New York City; Dr. Cannon, of Baltimore, Md., and many other observers report several hundred cases of all stages of the disease with apparent cures of from eighty to ninety-five per cent. I have only treated a few cases, but the results were most encouraging. The formula I use is metallic iodine, Gum Camphor, 1 oz.; oil of turpentine, 2 oz.; sulphuric acid, C. P., 20 drops.

Mix. This mixture penetrates the tissues, and a gas (carvacol) is generated that is very destructive to germ life. The peculiar taste is detected by the patient in coughing for hours after the operation. The current probably acts also from its chemical effects —that is, from the deposit of ozone and nitrous acid in or on the treated surface, and from the ultra violet light produced in or on the tissues by these discharges. Physical results are secured from the expansion and contraction of the cell itself, and in the stimulation of the natural galvanic currents of the body which accompany every chemical reaction and muscular effort. In addition to the above, the open air treatment, nutritious food, hydrotherapy, and the administering of mercury succinimide, one-fifth grain, subcutaneously, every other day.

The Morton wave current induces tissue vibration and contraction, thereby re-establishing normal circulatory drainage. It has a most remarkable tonic effect on local and general metabolism, stimulating the circulation and the secretions, increasing elimination, relieving pain and congestion, and absorbing inflammatory exudates and gouty and rheumatic deposits.

Chronic Nephritis.

Mrs. R., age 30 years, New Jersey. Admitted to my Sanatorium on April 12, 1909. Remained until April 29, 1909. An Edebolhs operation, decapsulation, was performed on both kidneys four years ago. The patient gradually grew worse, and has since then spent most of her time in the Dansville, N. Y., Sanatorium. She was pale, weak and anæmic; eyelids puffy and œdematous; tension 220; occasional attacks of severe chest pains with dyspnœa; obstinate insomnia; headache; tube casts; albumen; with a large quantity of low specific gravity urine, 1002. Treatment: D'Arsonval currents, auto-condensation daily, followed by the static head breeze and the galvanic currents, (positive to forehead and negative to nape of neck) and hydrotherapy. Marked improvement in every way. Urine contains much less albumen and the specific gravity increased to 1010. Tension reduced to 155. Sleeping well. Headaches and insomnia relieved and the patient was able to go driving and walking.

She was so much elated over her improvement that upon returning home she had her physician install an electric outfit so that she could continue he treatment. All previous attempts to reduce her tension were unavailing.

My experience is that many chronic kidney lesions, including Bright's disease and diabetes, which are due to faulty metabol-

ism, can be restored to health by a judicious combination of hydrotherapy and electricity; with careful supervision of the daily life, especially as regards diet, bathing, clothing, etc. In prostatitis, seminal vesiculitis, enlarged prostate, senile and specific, no treatment has given me such satisfactory results as the Morton wave and high frequency currents, administered with the prostatic electrode in the rectum—the metal electrode for contraction, and the glass vacuum electrode for chemical or bactericidal effects. Nitrous acid and ozone are freely given off and penetrate to a considerable depth into the surrounding tissues.

Of the many cases of senile prostatic hypertrophy successfully treated during the past six years, there has been only one relapse. Mr. H., age 73 years, of Richmond, Va., was treated at the Mecklenburg Sanatorium four years ago, for an enlarged prostate with retention cystitis, and a septic condition, with chills and fevers. Six treatments with the metallic electrode per rectum effected a complete cure, with no return until a month ago. He was then again troubled with frequent micturition. There was very little enlargement of the prostate, but there was a relaxed atonic condition of the parts. All of his symptoms subsided after a few applications of the wave current (metallic electrode for rectum). The treatments produced a marked improvement in his general health. In those cases of enlarged prostate due to gonorrhea, the results have been equally satisfactory. This is not surprising when we know that the prostate and the seminal vesicles are the culture fields and nesting places of the gonococci, and this is the only direct and tangible way of attacking them in their strongholds.

Chronic Rheumatism.

Practically all of these cases should recover under a judicious combination of hydrotherapy, electricity and careful attention to the diet and elimination.

Anthritis Deformans.

These cases will recover if treated early and special attention is given to nutrition and elimination. In neurasthenia, neuritis, epilepsy, and the various neuroses, one should study carefully the various etiological factors, correct faulty metabolism, and see that all the eliminating organs are properly performing their functions.

I have records of many interesting cases of the various psychoses and neuroses successfully treated by physical therapeutic agents; but I will not tax your patience by reporting them. In closing, a brief allusion to one case may be of interest. Mr. B., age 26 years, was a healthy child except some congenital urethral malformation, for which he was operated upon twenty times in four years, chloroform being the anæsthetic used. Referred by Dr. Thomas W. Murrell, of Richmond, Va. Epilepsy (Grand Mal) came on ten years ago. Severe attacks occurring every two weeks. Under X-ray treatments by Dr. Murrell the attacks were limited to every three weeks. Under the continued use of the X-ray and hydrotherapy, with 30 grains daily of sodium bromide, he has been entirely free from any epileptic manifestations for a period of more than six months. There has also been a marked improvement in his mentality and general health. All of the orthodox remedies had been faithfully tried by many of the leading clinicians; and this patient was sent to me as a test case.

Prof. Morton, of New York, claims most excellent results in epilepsy from the use of the X-ray and the milk diet, or a diet closely approximating it.

Healthful Children.

By J. Steven Brown, M.D., Hendersonville, N. C.

Genuine joy is the rare and rich blessing that rests upon those who have charge of healthful children. Little other human happiness is quite so profound as that elicited by the possession of children morally, mentally and physically healthful. It is surely in the physician's province to teach mankind the proper modes of preserving physical health. Nor is it out of his sphere to instruct them that healthful minds and morals should be in harmony with physical health.

Men look to physicians as to those in authority and competent to teach the great fundamental truths involved in the evolution of healthful children. It would fill a cyclopedia to write out all the details. While every child should be a law unto itself and the medical advisor should individualize his advice to suit each subject, it may be well to recall a few fundamental facts.

1st. The healthy child should be well born. The parents should be sound and of good lineage. Let the youth know before they sow wild oats that their children and grand-children and great grand-children must help in the harvest. Reference is made not merely to so-called specific troubles, but to all that chain of ills arising from improper modes of living. The unstrung society woman and the drug habitue, the idolater who worships the dollar so devoutly that he has but four or five hours a day for sleep, little time for nourishment and none for diversion, and even the pro-

fessional man who works at such a high tension that he has no time to maintain the proper equilibrium between mind and body —these and their like have little more right to expect healthful children than those who break the laws of health in more immoral ways.

"Like parent like child." The child of a dyspeptic father or mother is easier prey for the digestive disturbances of early childhood. The child of tubercular parents is an easier victim of respiratory troubles. Hence we should teach parents how to counteract as far as possible any evil hereditary tendency.

No matter how perfect the heredity, in order to maintain a healthful child its habits in regard to sleep, exercise, fresh air and feeding should be regular and correct. Baby should have a quiet sleeping place, removed from all likely noises and disturbances. The peaceful sleeper should never be disturbed to gratify the curiosity of admiring friends and relatives, nor to satisfy the whims of an over-attentive mother.

In this era of emphasis on fresh air and exercise the mere mention of these matters will suffice. Of course the baby needs an equable temperature, but this should be secured by regulation of clothing and artificial heat rather than by smothering in a close stuffy room. A child can hardly have the same degree of health and vigor in a low, hot, malarial climate that the same child would enjoy in a more bracing atmosphere. Nor does penetrating dampness or excessive cold of severe winter climates prove conducive to the child's welfare. While all cannot live in suitable climates all the time they should have the benefit of an invigorating climate during special seasons, as far as possible.

Perhaps the most important and the most difficult factor in child-life is proper feeding. It needs no emphasis in this audience —each of you doubtless make it clear to every mother that, barring hereditary dangers, it is her most solemn duty and should be her greatest pleasure to nourish her offspring at her own breast. It is the rarest occurrence that a mother's milk is not the safest diet for her infant. If it seems to disagree, try faithfully to correct it by regulating the mother's habits and diet before you try the more dangerous experiment of modified cow's milk or of the usually inexcusable foods. Circumstances should govern the beginning of mixed feeding. I believe it is better to begin this cautiously at an earlier period than is usually advised. The first addition to mother's milk should be suitable cow's milk properly modified. This is generally admissible by the fourth month; a little later rice-water or barley-water may be added. Gradually the child is prepared to be independent of temporary changes that are apt to occur in the mother's milk and that are apt to influence the child's health. It is also better prepared for the not infrequent emergency of necessary premature weaning. By the twelfth month the child should be independent of the mother's milk. One year's lactation is long enough drain on most mothers, and most year-old children thrive better on a carefully regulated diet exclusive of the mother's milk now quite uncertain and irregular in both quality and quantity. Parents should know the limitations of the child's digestive system. They should be strenuously informed of the folly of allowing the child to partake promiscuously of whatever may appear on the table. Even one mouthful of an unsuitable food may be sufficient to usher in a fatal dysentery or cholera infantum.

Such contagious diseases as diphtheria, scarlet fever, pertussis and tuberculosis should be carefully avoided. People should know the dangers of dirt eating or even of eating soiled fruit and berries and vegetables without very careful cleansing.

The sooner we Americans can be educated up to the safe and sane Chinese practice of preserving the health of our patients, the sooner we recognize the full force of heredity and hygiene as factors in the health of the nation far superior to potions, pills and scalpels, the more credit will be due to our usually good practical common sense and the more liberal will be our contribution to our nation's happiness and prosperity; for we well know that the near future of the nation depends on the children of today.

The Surgeon and Gynaecologist—Not an Entity.

By C. M. Strong, M.D., Charlotte Sanatorium, Charlotte, N. C.

The history of medicine is of unbounded interest to the student. Its evolution has kept pace with the world's advancement along all lines. Its early history was shrouded in ignorance and superstition until disenthralled by the spirit of freedom. It has only been within the last half century that freedom of medical speech was permitted. It evolved from the cant of the Barbarous Age and the bigotry and intolerance of the Middle Ages, to that of the scientific light of the Twentieth Century, until there is danger of evolving too far. I mean specialism.

I believe that specialists are a necessity, but the danger now seems to be that specialism will divorce itself from general medi-

cine. I am a specialist myself. My plea is for the doctor plus the specialist. In other words, he should practice general medicine before he becomes a specialist.

This would not be true were the human body not such an interdependent constitutionality. The physician, like the astronomer, is constantly discovering new stars and constellations of disease, and there are yet others undiscovered. People die yet of diseases not catalogued.

Therefore my contention is that the surgeon and gynæcologist are only a part of a great means to accomplish certain ends, viz., to preveut, to alleviate, and to cure disease. Surgery takes away obstruction to functions, poisonous areas, reconstructs broken connections, and may in a general way increase reactionary life, but in itself has no occult power. In its field it has many marvelous triumphs, but alone, unguided, simple mechanical surgery is often useless and dangerous. The degree of Surgeon, etc., should be added to that of M. D. as is done in some older countries.

Surgery, robbed of its stage play, is brain-dexterity and conscience, and the greatest of these is surgical conscience. It required me about ten years to cultivate it, —that is, to know when not to operate. A great row of mounds on certain hills around our city are mute but impressive evidences of my educated surgical conscience.

The surgeon should be surrounded by the best means science can give, and the medical science is so broad no one man can cover it. Hence I believe the one man surgeon has passed, and his best work of the future must be institutional. Of course, this applies to selective surgery principally, because from the nature of the case emergency surgery must be done at once, but even where it is possible, the first aid should be given and then carried to the nearest institution.

The best surgery must be composite. The internist, the alienist, the microscopist, the pathologist and the surgeon should all act in cases of obscure disease, and I don't believe the best work can be done by hired assistants, who too often do their work in a perfunctory manner, but a collection of specialists thoroughly in accord and with united ideas can best evolve the highest degree of efficiency.

I do not mean to depreciate in any way the isolated surgeon, who has done and is doing such noble work. Are we not reaping today what they have sown? Times and conditions are changing. The luxury of today becomes a necessity tomorrow. Enlightened humanity demands of the medical profession its best. Rapid and comfortable transit makes my contentions possible almost anywhere. This composite, institutional work does not in any way rob the surgeon of his individuality; for has not St. Mary's its Mayos, Johns Hopkins its Kellys, Finneys, etc?

In order to emphasize my contentions, bear with me in the citation of a few concrete cases, which have come under my observation, proving the benefit of wise and interested counsel.

Case 1.—Mrs. V. was brought to hospital for cancer of stomach, all symptoms present with the exception of a diarrhœa, which proved to be, by aid of pathologist and internist, amœbic dysentery. Appendicostomy helped, but too late to cure patient.

Case 2.—R. was presented for gall bladder disease, having most of cardinal symptoms. Operation done. Normal gall bladder found. Then passing through different hands, myxœdema diagnosed, from which she shortly died, too late for treatment. Thorough, competent prior examination would have prevented needless operation, and at same time valuable time was lost for specific treatment.

Case 3.—Two cases of supposed appendicitis were operated upon, and both proved to be typhoid fever, and both died. Operation successful, but inadvisedly done. These were not my cases.

Case 4.—Mr. C. presented all symptoms of recurrent appendicitis. Operation performed; while still in bed a more violent attack occurred, and after able consultation X-Ray photo proved it to be stone in ureter, requiring another operation, which cured him. This was my case. Here I would state that satisfactory X-Ray work can not be done by the tyro or surgeon. He must be expert.

Case 5.—Mrs. P. presented every evidence of grave abdominal disease. Was sent in for operation. After passing through hands of competent specialist, dreaded pellagra was diagnosed, and she shortly died, saved from needless suffering and expense.

Case 6.—Mrs. D. sent in for fibroid of uterus which she had, but after thorough examination cancer of pancreas was diagnosed, which was confirmed by an autopsy.

Case 7.—General adenitis of neck and marked anæmia. Of course, T. B. was the diagnosis at first, but after thorough examination by nose specialist, polypus and sinusitis were found, and first treated, followed by excision of glands, which gave complete cure. Here I must remark that a pathologist must be of the best.

One objection I might surmise,—can't afford it, from money point of view, and would answer that my field is North Carolina, one of the poorest and stingiest States in the Union, they say, and yet I find no

difficulty in collecting a reasonable fee for these consultations in most cases, and where they are unable to pay, my colleagues have responded as cheerfully as in the first instance, and I find a constantly increasing demand by the patient for this collective examination.

Brother physicians, let us make it a personal equation. You are sick. Operation advised. Would you rather go to one skilled surgeon and leave it all to him, or would you rather have four or five different specialists go over you, and then refer you to surgeon?

Operations in grave diseases at best are often worse than useless. My experience with surgeons is that they show cold feet sooner than the ignorant laity. Why is this? The Golden Rule eminently fits the surgeon.

Conclusions.

1st.—The surgeon and the gynæcologist are a part of general medicine.

2nd.—General medicine is too broad for one man, hence the necessity of specialists.

3rd.—The specialist, unguarded and unadvised, is inefficient and often dangerous.

4th.—Surgery is brain-dexterity and conscience.

5th.—The highest type of surgery is consultative and institutional.

6th.—The consultative must be efficient and cover the whole field.

7th.—Inadvised and promiscuous surgery should be discouraged.

8th.—Surgical conscience must be cultivated.

9th.—The surgeon and gynæcologist are not entities, but integral parts of a whole.

10th.—It is time for me to close.

An Antiseptic Leech.

By W. D. Witherbee, M. D., Professor of Skin Diseases and Materia Medica in the North Carolina Medical College, Charlotte, N. C.

Another name for this dressing, quite as appropriate as the title, would be *a lymphatic leech*. In fact this might better imply the function for which it is designed.

The antiseptic leech consists of a piece of sterile gauze dipped in a solution of magnesium sulphate. The surface to be directly applied to the wound is sprinkled with a little powdered boracic acid. The gauze is then applied to the granulating surface and over this a piece of adhesive plaster is placed in such a manner as to completely cover the moist gauze and at the same time seal it from the air to prevent evaporation. The reason for preventing evaporation is that capillary or lamp-wick drainage is maintained just so long as the gauze remains moist. Besides capillary drainage epsum salts increases materially the drainage of the lymphatics by osmosis. If the granulations adhere to the mesh of the gauze, a piece of perforated gutta percha tissue may be placed over the wound before the gauze and adhesive plaster are applied.

The indications for such a dressing are chiefly if not entirely in those cases where it is essential to reverse the current of lymph in the local tissues and obtain drainage instead of absorption of both the toxines and bacteria. The usual method of treating infected wounds at the present time is by means of a moist antiseptic dressing. In the more virulent infections corrosive sublimate solution of various strengths is used. Corrosive sublimate, as its name implies, is a caustic, and even if used in dilute solution acts as an astringent by coagulating the albumen and thus tends, in spite of the capillary drainage, (if the dressing is kept moist) to seal the wound and interfere with the drainage of the local lymphatics. In other words, it is more important to drain the local lymphatics of their bacteria and toxines than it is to simply destroy those present in the superficial layers of the wound by means of an antiseptic which coagulates albumen.

In the treatment of cancer we are constantly reminded of the evil effects of local irritation causing an increased blood supply to the part which in turn increases materially the virulence of the malignant cells present. This is too often well illustrated by the results obtained following the use of caustics or partial removal by the knife.

The cardinal principles of the Open Method Treatment of Cancer, which I first described in a paper read before this Society in Charlotte in 1906, are: 1st. Enucleation. 2nd. Drainage. 3rd. X-Ray. Even if the enucleation is carried out according to the dictum "cut only in normal tissues" that is wide of the diseased area there can be no doubt that even then some of the malignant cells still remain. The inflammatory reaction or congestion of blood which always takes place about every wound causes the embryonic cell or cells which still remain in these tissues to take on more life and virulence and eventually produce a recurrence which is invariably more malignant than the original condition. The method used to overcome this inflammatory reaction, as well as to promote more thorough drainage about a wound following operation in a case of epitheleoma of the skin, is by the application of the antiseptic leach as well as the daily application of the X-Ray. If the case is one of mucocutaneous surface it is impossible to apply this dressing. After the removal of the diseased area a cut is made in the mucous

membrane just beyond the wound down to the basement membranes in order that the reaction may take place well beyond the tissues that may contain a stray cancer cell; this is also treated daily with the X-Ray. In cancer of the breast after the operation Bier's hyperemic apparatus should be applied daily as well as the antiseptic leech and X-Ray to facilitate drainage, overcome the inflammatory reaction and either drain away or destroy the cells that remain, thus preventing recurrence.

At the Out Door Clinic in Surgery of the North Carolina Medical College this dressing has been used with the most satisfactory results in the following conditions: 1st. Ulcers with hypertrophic granulations. 2nd. Inflammatory infiltration about joints due to trauma. 3rd. Various local infections as well as streptococcus infection after scarification. 4th. Epididymo-orchitis. 5th. As a vaginal tampon in the place of ichthyol or boroglyceride.

Present Status of the Pellegra Problem *

By Edward Jenner Wood, S. B., M. D., Wilmington, N. C.

A year ago, at the meeting of this Society in Winston-Salem, the question of pellagra was brought up, in three papers, and the discussion of these papers elicited the fact that the disease was very generally distributed throughout the State, regardless of section. Since that symposium, through the co-operation of many of the physicians of the State, the disease has been diagnosed and notes of the cases furnished me, and in this way, my studies have been materially aided.

It is gratifying to us to have the hearty co-operation and encouragement of the United States Public Health and Marine Hospital Service in the study of this problem, which we have reason to think is of far more importance than was originally supposed. At this time, Past Assistant Surgeon C. H. Lavinder, who was with us last year, is detailed in Columbia, S. C., studying the situation.

After a careful study of the literature extending over a century and a half, and after the study of something over fifty cases, we feel that we are not much further advanced in our knowledge of this obscure disease than was Lombroso in 1865. There are a dozen theories, and many of those who have only the most meagre knowledge of two or three cases are advancing ideas for the solution of a problem that has vexed the medical profession since 1755.

It is gratifying to know that the disease is being generally recognized, and there is hardly a physician in the South today who is not on the look-out for pellagra. In typical cases, the condition is so easily recognized that very often the diagnosis is made by the laity, in sections where the disease is being studied.

The idea of the relationship of corn to pellagra is so firmly fixed, that we can hardly get away from it long enough to look at the question of the etiology from an impartial point of view. There are many, however, who question the relationship of corn, and there are still others who consider corn merely as a culture medium on which the disease germ flourishes. Many ideas have been advanced, having for their chief point a specific micro-organism. Among the best known observers who have described an organism which they consider to be the specific cause, we have Ciuboni, Majocchi, Peltauf and Heider. More recently, Tizzoni, in Rome, and the writer, have again called attention to the probability of their being a specific cause. It is altogether probable that the organism described by these various observers is one and the same, and a review of the work of each of them would convince anyone that they were not altogether in the dark in their conclusions. It is very easy to fit in the idea of a specific germ and still not to contradict any of the conclusions which were arrived at by Lombroso many years ago.

The work of Tizzoni is of the greatest importance, and his monogram, which is just out of the press, is a master-piece of modern bacteriological research. Tizzoni's observations extend over something more than ten years, and during that time he has produced the disease experimentally hundreds of times and has studied the life history and peculiarities of his organism in the most exhaustive manner. He found that, by removing blood from the veins of a patient suffering with pellagra in the acute form, as well as by the removal of the cerebro-spinal fluid and cultures directly from the organs, he was able to grow on bouillon an organism which closely resembled the diplococcus of pneumonia, but which really was not a coccus, but a bacillus. This organism usually was found growing in chains, and this occurrence was so common that Tizzoni has given the name "the strepto-bacillus of pellagra." When this organism was injected subcutaneously into rabbits and guinea-pigs, a diseased condition was produced which was unquestionably pellagra. Tizzoni next attempted to produce the disease by feeding the animals with the specific organism, thereby attempting to imitate the probable way in

*Chairman's address before Section on Medicine of the Medical Society of the State of North Carolina, Asheville, N. C., June 19, 1909.

which pellagra naturally enters the body. Guinea-pigs which were fed on the ordinary food, with the exception of corn, were able to take enormous doses of the germ by the mouth without any ill results. On the other hand, when the germ was given with corn meal, although this meal was most carefully selected as to its purity and freedom from contamination, the animal readily succumbed to typical pellagra. Whether or not this organism requires a medium containing corn meal for its growth and development is a question. There still remains some doubt whether any carbohydrate food would not furnish the same favorable medium, and Tizzoni has suggested that there may be an explanation, in that, in the cooking of corn meal, as it is usually done by the Italian peasantry, in the preparation of pollenta, the balling of the meal protects the organism contained in its center from the high degrees of heat to which the surfaces of these balls are exposed. Wheat flour, cooked in the same manner, forms a homogenous suspension without lumps, thereby allowing the heat to reach every part. One of the most significant discoveries of Tizzoni was the fact that this organism may be heated to 90 degrees C. for one hour, and still not be destroyed. It is easy to see how a germ contained in the center of a pollenta ball could withstand the ordinary cooking process.

Occasionally, a bad sample of corn is found to contain the same organism which Tizzoni isolated from the blood, feces, cerebro-spinal fluid, and organs of pellagrins. A small amount of corn is beaten up in a sterile mortar and a culture tube of bouillon is inoculated with one-fourth its bulk of this crushed corn. The tube is then placed in the incubator, at 37 degrees C. for 24 hours. At the end of that time, it is placed at a temperature of 90 degrees C., and kept there for one hour. This heating kills practically all of the non-spore bearers, but the bacillus of pellagra remains unharmed, and from this tube, other tubes may be inoculated with the specific germ in pure culture. This is a most important point, because it offers an easy way for laboratory workers to rapidly examine any suspicious sample of corn in a relatively short time. The method is so simple that it may be done by anyone who has had any laboratory training. The same experiments were performed with this organism isolated from corn as was done with the organism isolated from the pellagrin, and the results showed that in both instances the germ was identical.

Experiments have not yet been made to determine whether or not this organism is found in other food stuffs, besides in corn, nor has it been determined whether or not there is some other source of infection than by way of the mouth. There are still those who hold that pellagra occurs commonly in sections where corn is never eaten, and in my own experience I have seen patients who gave a history of eating not near as much corn as is eaten in my own family. It is hard to conceive that in a section where corn is almost invariably the chief article of diet, and where the source of the corn is the same for the rich and the poor, that the disease does not abound more generally.

Experimentally, there can be no doubt that the bacillus of pellagra forms an antitoxin and that this antitoxin is curative. Tizzoni was able, by inoculating guinea pigs that had pellagra, with blood from a healed pellagrin, to cure every case. As a control, he found that guinea pigs experimentally inoculated with the pellagra bacillus at the same time with the above mentioned, died in every instance, unless given a dose of the blood of a healed pellagrin. H. P. Cole, of Mobile, Alabama, had two patients in extremis with acute pellagra. He had, also, under his care, a healed pellagrin. By using the method of Crile, transfusing the blood from the healed pellagrin to the other patient, he had the satisfaction of seeing the dying patient not only recover temporarily, but of securing a permanent cure, without recurrence. The second patient died before he finished the operation on the first. This experiment seems to prove conclusively that there can be no doubt that pellagra is a disease curable with an antitoxin.

It was Bellamy, of Wilmington, and later, Powers, of Clemson College, S. C., who first suggested the probability that epizootic meningitis of horses, or "blind staggers," is nothing more nor less than pellagra. While this point has not been proven, it is very necouroging to think that the horse is susceptible to pellagra, because we must have an animal for the manufacture of an antitoxin that is large enough to be bled large quantities of blood at one time, in order to make the manufacture of any antitoxin an economic possibility. When we remember that this organism grows readily in the laboratory on all the ordinary culture media, that it is easily isolated by the heat method above described, and that an antitoxin would be effective, regardless of the relationship of any particular food, it seems a simple matter for the manufacturers to soon supply us with a curative serum.

While a typical case of pellagra is as easy to diagnose as measles, yet there are many cases varying from the normal that

give us difficulty. When we first see the erythema of the exposed part definitely demarcated by the clothing from the sound skin and without any other symptom, we are often at a loss to know whether we have an outbreak of pellagra or a simble sunburn. It is never wise to make the diagnosis without the presence, or the history of the past occurrence, of a simple stomatitis, or a diarrhea, or both, but when we have the triad of symptoms: symmetrical erythema of the exposed parts, diarrhoea, and stomatitis, we need not hesitate to make a definite diagnosis. We frequently see cases without stomatitis and without a history of having had it, but it is very infrequent not to find diarrhoea or some other very definite digestive disturbances which are usually numerous and varied. A burning sensation in the epigastrium and a pain just below the left scapula are common symptoms.

"Pellagra-sine-pellagra" was mentioned at the meeting last year, but at that time we felt that our experience was insufficient to warrant any reliability in attempting to make this difficult diagnosis. Since that time, we have extended our experience along this line and we feel justified in concluding that not only does such a condition exist, but that it may be diagnosed. It is is a well known fact that the severity of the attack of pellagra is in no way indicated by the extent or severity of the skin lesion. We have seen many cases with a large amount of the skin surface affected, and yet the patient recover, while again, in other cases where the area of affected skin was small, the patients have succumbed. In most of our cases of "pellagra-sine-pellagra" we have found that a careful investigation of the previous medical history was very suggestive of one or more previous outbreaks of definite pellagra. Again, we found, on careful examination of the skin, in most of these cases, a faint line representing the limit of what must have been a skin lesion of mild degree. We are rather disposed to conclude that "pellagra-sine-pellagra" is a misnomer, and that in all these cases, at one time or another, there have been definite skin lesions of pellagra, though they may have been very insignificant. Our cases of "pellagra-sine-pallagra" were characterized by stomatitis, diarrhoea, and well marked nervous and mental symptoms. In all cases the patients were melancholy. In two cases the patients were markedly emaciated and the reflexes were very much exaggerated. Blood cultures taken from these patients were negative, but this was expected, as we have learned by experience that the organism can only be isolated from the blood of those suffering the acute form of the disease. In the discussion of a paper presented by the writer to the College of Physicians of Philadelphia, last November, Dr. H. A. Cotton. Superintendent of the State Hospital for the Insane, at Trenton, N. J., mentioned a class of cases recently described by Adolph Meyer under the term "central neuritis," in which the mental symptoms were quite similar to those of "pellagra-sine-pellagra." Associated with the stupor or anxious delirium he mentioned rigidity, peculiar muscular spasms or jactitations, and obstinate diarrhoea. All these cases terminated fatally. The etiology of central neuritis is obscure, but the process is probably due to an intoxication, and as Dr. Cotton said, the histopathology has been definitely described and can easily be diagnosed by a competent neuro-pathologist. While the two diseases cannot be counted altogether similar, still, they probably arose from the same pathological process. It was my good fortune to secure the brain and spinal cord from one of my cases of "pellagra-sine-pellagra," which I submitted to Dr. Cotton. He writes me as follows:

"My suspicions regarding the similarity of this process with that of central neuritis is well borne out in this case. The large motor cells and a great many cells in other regions show 'axonal reaction' to a very marked degree.

"The condition has been somewhat described by Marinesco and other Italians as 'chromatolysis' but none of them have recognized that it is an 'axonal reaction'. In other words, it is a parenchymatous degeneration of the central nervous system."

The case above referred to was unquestionably one of pellagra, and the pathologic finding as reported by Dr. Cotton, is most important, because, as Dr. Cotton says, it is altogether probable that this condition, which has been described as central neuritis is probably prevalent in the insane institutions of New York and Massachusetts. It is certainly worthy of further investigation to determine the question of the possible identity of central neuritis with this atypical form of pellagra. It is also probable that many of the cases diagnosed dementia-paralytica, in which have occurred peculiar skin lesions, are really pellagra.

In the fourth Annual Report of the State Board of Health of the Commonwealth of Georgia, 1908, Dr. H. F. Harris reported the occurrence of sprue. From Dr. Harris' description, it would be extremely difficult to diagnose this condition from "pellagra-sine-pellagra", owing to the fact that the characteristic symptoms of sprue are stomatitis, diarrhea, emaciation, and mental disturbances very similar to pellagra. In my

cases of "pellagra-sine-pellagra," I have not noticed the peculiar ulceration which forms from time to time on the buccal mucous membrane on the roof of the mouth and between the last molar teeth on both lower and upper jaws. The stomatitis of pellagra is usually a simple redness, with salivation but without definite ulcerated patches. I am disposed to question the correctness of the diagnosis of these cases, or to question the correctness of the diagnosis of our cases of "pellagra-sine-pellagra," because, in both conditions, the symptoms and course were practically identical. It is far more likely that the diagnosis of pellagra is correct, and that the diagnosis of sprue was made through an imperfect knowledge of pellagra. I think that if Dr. Harris should see some of our cases of pellagra, and also some of our cases of "pellagra-sine-pellagra" that he would be disposed to accept our view. It is to be hoped that, with the discovery of a specific organism of pellagra, we may be able to resort to a definite agglutination test similar to the Widal test in typhoid fever. We have some grounds for thinking that this test will be perfected shortly.

The treatment of pellagra has been one of the most disappointing in medicine. There is no specific, and first one remedy after another has been extolled, only to be thrust aside after the demonstration of its uselessness. In our experience, from the beginning, we are able to predict with a fair degree of certainty, those cases that will recover and those that will succumb after a few weeks, or possibly a few months, of untold physical and mental suffering. In the *Berliner Klinische Wochenschrift* for February 8th, 1909, there is a notable article by Babes, Vasiliu and Gheorghus, in which they advocate the treatment of these patients by arsenic, given in three ways, simultaneously. They inject 7½ gr. atoxyl hypodermically, and in addition to this, they have rubbed into the patients skin, 75 gr. of an ointment composed of a 1 to 50 arsenious acid preparation. Finally, they have the patient take internally, one-fiftieth of a grain of arsenious acid in pill form, three times a day. These observers have treated sixty five cases of pellegra in this manner with the loss of only six cases. In the article referred to above, they report a series of fourteen cases, all of which responded readily to from one to three treatments as detailed above, and have gone for a number of months with no sign of any recurrence. In all of these cases there was a marked gain in weight. At the present time, I am giving this treatment a trial, but am not yet prepared to report my experience with it. Last summer I treated a case of acute pellagra in a child eleven years of age by the hypodermic injection of four grains of atoxyl, repeated every fourth day. The drug in no way altered the course of the disease. I doubt very much whether this arsenic treatment which was successful in the milder European form of the disease, would affect our very severe and rapidly fatal cases. It is interesting, however, to note in this connection that the disease as we see it today is very much more attenuated than our first cases three years ago. Three years ago our cases always died while at the present time the disease is assuming the more characteristic chronic form which is very much milder. It is to be hoped that in these cases the arsenic treatment may give us some encouragement.

After all, we must look to serum therapy for relief. As mentioned above, we have every reason to expect the early preparation of a curative serum.

In concluding this paper, I would like again to entreat the medical profession in North Carolina for their support and cooperation in the study of a disease that bids fair to be second only to tuberculosis in its importance. We are already deeply indebted to many members of this Society for their assistance during the past year, and I take this opportunity to assure them that any information or report of cases, or ideas as to the etiological factors in this disease will be highly appreciated. We are ready to give our time and our means, as far as we are able, to the study of pellagra, and we feel that we will not plead in vain for the assistance of our brother practitioners, who should be just as deeply concerned in the outcome of our studies as we are ourselves.

Introductory.

Mr. President and Gentlemen:

I desire to express my high appreciation of the honor conferred upon me by the invitation of the Tri-State Medical Association, conveyed through their secretary, to read a paper at its 11th annual session. This invitation has given me all the more pleasure to accept, because the meeting was to be held in Charleston, S. C., my beloved native city, where I have not lived for a number of years, but to which I always return with a sense of coming home,—and for this opportunity I wish to tender my grateful acknowledgment.

I interpret the invitation, however, as a tribute to the work in which I have been so long engaged, rather than as any personal compliment to myself, and I have, therefore, regarded it somewhat in the light of a command that I should select for the

subject of this address the consideration of some branch of medicine relative to this particular line of work. But after scanning the wide field of material, which is now included under Sanitary Science, I found so many interesting and profitable subjects for discussion, demanding equal attention, that I could decide on none in especial; so I have chosen as my topic a general review of the growth and development of preventive medicine.

I feel a great diffidence in attempting to cover this ground anew before an audience like this, and in an atmosphere where has been produced some of the best work in medicine, since we have been known as a profession;—but for this presumption I would ask your indulgence.

I also wish to take this occasion of placing on record my profound gratitude for belonging to a profession in that portion of which so many important problems have been solved, and which has done so much, especially within the last three decades, to make a fixed science of preventive medicine.

The Growth and Development of Preventive Medicine *

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Although the development of hygiene or preventive medicine which places it on the footing of a science is of comparatively recent date, its foundation was laid many centuries ago. Public hygiene was cultivated by the Egyptians, and in the Mosaic law it reached a remarkable organization by interweaving its requirements with those of religion. The personal hygiene of the Greeks attained a high degree of perfection, and the value of exercise and training was fully recognized by them. The Romans, too, in public and private hygiene, were our superiors in the matter of water supply and baths. But modern sanitary science has a much wider scope and is concerned with the cause and preventive treatment of disease quite as much as with the conditions under which these diseases prevail. Its first steps as a science may be said to have been made in the 18th century with Jenner's discovery of vaccination for smallpox, or with Howard's association of fever with over-crowding in jails.

Preventive medicine, however, was but an incomplete science, stumbling aimlessly in the dark, until bacteriology shed the light of its researches upon it and opened up unheard of possibilities for the prevention of disease. Indeed it is soley through the investigations into the life history of the vegetable and animal unicellular micro-organisms that our present knowledge of the etiology, course and prevention of infectious diseases has been acquired; and it is only by the practical application of the principles and methods of bacteriology that many diseases can be diagnosed or the problems which present themselves to the sanitarian be certainly solved. The prominent position, moreover, which this allied science already holds toward preventive medicine is daily increasing in importance. Original discoveries are constantly adding to the list of known germ diseases; even at present preventive treatment by bacterial products has been successfully used in several of the most prevalent infectious diseases, and the outlook is encouraging for eventually obtaining through attenuated cultures or through the toxic substances themselves means for immunizing against and arresting, if not actually curing, most of the specific infections.

In order to form a correct estimate, therefore, of the growth and development of preventive medicine, it is necessary for us to take a brief survey of the main facts which have now been established regarding the cause and mode of infection in infectious diseases, and also the chain of events which is supposed to occur subsequent to an infection, together with the possibilities of effecting prevention of these diseases, by means of substances elaborated in the body of an individual or animal recently recovered from an infection.

The subject of this paper will be assumed to be broad enough to cover not alone the diseases, whose specific microbic origin is known, but also those in which, though as yet undiscovered, these micro-organisms are believed surely to exist.

The known pathogenic micro-organisms may be divided into two great classes,—*Bacteria* and *Protozoa*. *Bacteria* are usually classed among plants from the fact that they are able to derive their nourishment both from organic and inorganic materials, but in many respects they resemble also certain lower forms of animal life. *Protozoa* are commonly classed among animal parasites, although they are so closely related to the lowest plant forms on the one side, and to the many-celled animal forms, on the other, that it is difficult to make a sharp line of demarcation between them. So far only a very few protozoa have been

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shown to produce disease in man,—in the lower animals the number of pathogenic forms is slightly larger,—but the study of these micro-organisms offers an interesting field for further investigation.

Pathogenic micro-organisms may be considered to cause disease either by their mechanical presence in the tissues, by the poisons produced by their growth, by the withdrawal from the body of necessary food substances, or possibly by other ways as yet unknown. Although injury is probably caused by all these different means, it is now believed to be chiefly due to the reaction upon the body cells of the poisons elaborated from the tissues by the germs in their growth. Each variety of germ probably produces one or more specific as well as general poisons, some of which have been partially isolated and studied, as in tetanus and diphtheria. Bacteria cannot grow and multiply either in the living body nor outside of it without proper nourishment and suitable conditions, such as adequate moisture, light, temperature and air; nor can they develop without changing the substances upon which they grow. Outside the body this activity gives rise to the processes of fermentation, putrefaction, etc., inside the body to disease.

There are many complex factors influencing the susceptibility of the body to infection from any germ, only a few of which are as yet completely understood. The most important, however, and perhaps the all-embracing, one is the condition of the body at the time of infection, whether it is favorable or unfavorable for the growth of the organism,—whether the soil is suitable or not for the development of the seed. For without the existence of proper conditions no germ can produce disease. In the living body the conditions are naturally unfavorable for the growth of bacteria, even after they have penetrated the epithelial investments of the skin and mucous membranes, which so long as they remain intact protect the interior from bacterial invasion. Normal blood has of itself, to a considerable extent, a bactericidal power; and the tissue cells of the body in general show a similar action, depending upon the different cell groups, state of health, robustness, and period of life of the individual attacked. This resistance to or protection against infection varies in different individuals toward the same bacteria, and in different degrees in the same individual toward different bacteria,—which resistance may be either natural or acquired. Long before bacteria were discovered a difference in individual susceptibility, or refractoriness to different diseases, was recognized. It was also noticed that persons who contracted certain diseases were not apt to have them again, at least not within a comparatively short time. But the reasons for this immunity, natural or acquired, are still but partially known.

Whenever the power of resistance is lost or diminished, however,—and anything which lowers the general or local vitality of the tissues, such as hunger or poor food, bad hygienic surroundings, exhaustion from over-exertion, mental depression, exposure to cold, the deleterious effects of poisons, bacterial or chemical, acute and chronic diseases, vicious habits, drunkenness and excesses of all kinds, etc., reduces the power of resistance,—whenever this power is lost or diminished, we run a grave risk of contracting disease.

(It may be well to state here in parenthesis, that in discussing the theories of immunity and infection it should be remembered that, however interesting or plausible they may be, they are only theories and may be shown to be untrue.)

But granted that somehow or other the micro-organisms have gained entrance into the body and that infection has taken place, let us endeavor to trace briefly and clearly what is thought to occur. Between the time when the bacteria effect a lodgment and that in which the disease manifests itself the patient simply is troubled with malaise, he feels languid and out of sorts. This is the stage of incubation, and it is during this stage that the blood and tissues are deeply engaged in the effort to repel the attacks of the invading germs. These multiply, however, with varying speed throughout the body generally, or they may be at first localized, or even remain localized, as in tetanus, all through the disease. Growing in the tissues, they generate in increasing amounts their poisons or toxins, which soon cause profound changes in the body: the patient becomes really ill and shows signs of unmistakable infection.

What then happens? Does the body give up the fight entirely? No indeed; the white blood cells, the wandering cells and the cells of the tissues most affected still keep up an unequal combat. From the lymphatic glands and spleen, armed hosts of white blood cells rush to the front and attempt to destroy the foe, but all in vain, perhaps; the disease runs its course, to end either in death or recovery. But if the case terminates in recovery, how are the micro-organism finally overcome? This question involves many complicated processes, which time will not permit us to go into in detail, but the main principles are as follows:

As has been previously noted, once the bacteria obtain a firm foothold in the body it is subjected to the action of generated

toxins. These give rise to the well known known symptoms of loss of appetite, headache, pains, fever, delirium, etc. In addition to the active warfare of the leucocytes (Metchnikoff's theory of *phagocytosis*), groups of cells throughout the body, after recovering from the first onslaught, as it were, of the toxins, begin to tolerate their presence, then effect a change in their chemical constitution, and finally elaborate substances (Buchner's theory of *Alexins*), which antagonize the toxins and counteract their action altogether, thus lending aid to the warrior cells. Other substances are also present in the blood which help the leucocytes by preparing the bacteria for absorption and destruction: (these are the *opsonins*) while, on the other hand, substances are given off by the virulent bacteria,—*lysins*—by means of which they strive to neutralize the protective substances of the tissue cells, the *anti-lysins*. Ultimately, however, possibly after a desperate struggle, during which the life of the patient may hang in the balance, the invading microorganisms are overthrown and recovery is brought about, a more or less permanent degree of immunity being produced against the specific disease.

Besides the substances referred to, we know that *antitoxins* also are developed in the blood. As to the nature of the action of the toxin and antitoxin upon each other there has been much curious speculation. Among others, Ehrlich's "side-chain" theories are interesting, whether they have a foundation in fact or not, but their chief value has been in establishing that the protection afforded by antoxic and bactericidal serums, used practically in the preventive treatment of certain infections, is due, for the most part, to purely chemical action, the antitoxins neutralizing the toxins after the manner of chemical reagents and the bacterial anti-bodies and complimentary bodies combining with the bacterial cells. Many points, however, are still far from clear as to the manner in which both antitoxins and toxins act. Until recently nothing was known about the chemical composition of these substances, only their physiological properties having been studied. But it has been shown, at least with regard to diphtheria and tetanus, that they are either closely bound to the serum globulins or are themselves substances of proteid nature allied to the globulins.

Having thus briefly outlined the theories advanced to explained the principles of infection and immunity, I would now direct your attention to a review, as concisely expressed as possible, of the known causes and modes of infection of some of the more prevalent infectious diseases, and of the means which have been successsully employed for their arrest or prevention.

Diphtheria:—Since the discovery of the cause of this disease and our knowledge of the conditions of its transmission, together with the use of antitoxin, there has been a marked reduction in its prevalence, and an equally marked decrease in the mortality. It is caused specifically, as is now known, by *bacillus diphtheriæ*, described by Klebs and Loeffler in 1883-4. Its modes of infection are by inhaling infected air, by drinking infected milk, and also through clothing, etc., used by diphtheria patients. Virulent bacilli have frequently been found in the healthy throats of persons who have been brought in direct contact with patients, infected clothing, etc., without contracting the disease. It is evident, therefore, that infection requires more than the mere presence of the specific germs in the throat, and that individual susceptibility in this, as in all infections, plays an important part. This susceptibility may be natural or acquired.

Behring's discovery of antitoxin (1892) in the treatment of diphtheria may be compared in practical importance with Jenner's discovery of vaccine in the prevention of smallpox, but there is this remarkable difference between them; while vaccination was discovered by accident and empirically proved to be of value by use in the human subject, antitoxin was discovered by an organized plan worked out in the laboratory and demonstrated to be true by experiments on animals, before it was tried on man. This method of investigation, instituted by Pasteur as the pioneer, and adopted by Koch and his followers, which Behring employed, was radically new, and marks a great epoch in the history of medicine. That anything so entirely different from the old emperical methods should have met with opposition at first, from the older members of the medical profession, who had been taught to abide by clinical experience and time-honored traditions, is not at all surprising. But positive conviction has now replaced misconception and prejudice in the minds of the majority of its former oppouents.

The preparation of antitoxic serum is based upon the artificial immunization of animals (horses), by subcutaneous injections, in gradually increasing doses, of the specific toxin. The antitoxin treatment of diphtheria, however, has been so frequently and so fully described in numerous publications, that only its practical results, because of their great importance, need be mentioned here.

The great mass of physicians are now convinced,—First, that diphtheria antitox-

in in doses of 500 to 1000 units will confer immunity against diphtheria for from 2 to 4 weeks, and that the period can be lengthened at will by repeated injections;—Second, Behring's claim that, if antitoxin be used early in the disease, i. e., within the first 24 hours, in doses of 2000 to 5000 units, the mortality from diphtheria will not exceed 5 per cent., is borne out by experience all the world over;—Third, that taking cases as they occur in practice in their early and late stages and whether the infection be nearly pure or mixed,—the severity of the disease is lessened and its clinical course shortened by the use of antitoxin, and that thereby many more lives are now saved than formerly. This improvement is most conspicuous in the most fatal form, the operated cases of laryngeal diphtheria.

As the result of the use of antitoxin, there has been an average reduction of mortality from diphtheria of not less than 50 per cent., and under the most favorable circumstances a reduction of one-quarter, or even less, of the previous death-rate. This has occurred not in one city at one particular time, but in many cities, in different countries, at different seasons of the year, and always in conjunction with the introduction of antitoxin and proportionate to the extent of its use. In many thousands of cases treated no dangerous symptoms have followed its employment, and even the disagreeable rashes, which are sometimes caused by the serum, are now to a large extent avoidable by the use of the purified and concentrated antitoxin. So fully is the value of the preventive treatment recognized that antitoxin is at present furnished free of charge by many States and cities for use, through their official boards of health, in public institutions, and also for general distribution through private physicians, for the treatment of diphtheria among persons too poor to pay for the remedy.

Finally it may be said that, with the more general use of antitoxin, the more careful isolation of the sick, through disinfection of the clothing, etc., the rigid scrutiny of the milder cases of throat diseases, a more stringent surveillance in the period of convalescence, and the routine examination of the throats especially of school children, the dangers of the disease have been reduced to a minimum. The chief danger is now in the mild cases, in which the disease is unsuspected, and the child may be going about. Such patients are often a source of widespread infection. The careful attention to the mouth and teeth of children is also an important factor. In children with recurrent attacks of tonsilitis, in whom the tonsils are enlarged, the organs should be removed. Through these measures the prevalence of the disease may be still further dimished.

Tetanus.—The tetanus bacillus, discovered by Nicholaia in 1884, is now regarded as being the cause of all the so-called forms of tetanus, such as puerperal tetanus, tetanus neonatorum, idiopathic, rheumatic and traumatic tetanus. It is one of the most violently poisonous of all known bacterias the dried and purified toxin being fatal to a man weighing 150 lbs. in a dose of 0.23 milligrams, whereas it would require 4.37 milligrams of dried cobra venom, or 30 to 100 milligrams of strychnine or anhydrous prussic acid, to produce the same effect. Its mode of infection is through wounds of the skin or mucous membrane. In certain localities it is frequently found in the soil, floors of dwellings, splinters of wood, old nails, hay, horse and cow dung, and also in the air.

Since the advent of aseptic and antiseptic surgery tetanus has become less frequent after surgical operation, but it is fairly common after lacerated wounds, and especially after child-birth. In New York City, according to the vital statistics, there are about 15 to 30 cases per year of idiopathic tetanus and 40 per year of tetanus neonatorum. Its prevention, therefore, is still a matter of importance. To produce the disease there must always be some wound in which the bacillus finds lodgement. In one stage of its development it contains very resistent spores, by means of which infection is brought about. The spores require favorable conditions to grow, and if these conditions are removed the germs are rendered harmless. Thus, in regions where tetanus is prevalent, early and thorough cleansing and disinfection of all wounds, however insignificant, become of more than usual importance. Such disinfectants must be used as are not only antiseptic, but also antitoxic in their action. In some cases where the parts are extensively lacerated, amputation may be necessary.

Tetanus antitoxin, prepared in the same way as diphtheria antitoxin, has been applied on a large scale in immunizing horses against possible infection, especially in laboratories where these animals are injected for the production of commercial antitoxins. Similar injections are often given to man. For immunization 10 c.c. of a serum of medium strength will suffice unless the danger seems great, when the injection is repeated at the end of a week. For treatment, it is well to begin with 30 to 50 c. .c., and then, according to the severity of the case, give from 20 to 50 c.c. each day until the symptoms abate. The injec-

tions are given intravenously or through lumbar puncture. In New York City there are usually fifteen to thirty cases following every Fourth of July. Most of them are caused by infection through blank-cartridge wounds. Recovery sometimes follows from the ordinary symptomatic treatment or without treatment at all, so that the statistics of cures of the disease by the injection of antitoxic serum must be very carefully sifted before they can be accepted

The power of tetanus antitoxin to neutralize the poison before it has affected the tissue cells is marvelous and certain, but after the cells have been injured it is slight and uncertain. The curative treatment in man, therefore, has not been followed by very satisfactory results, owing to the fact that the disease is generally too far advanced before it is recognized and treatment commenced. Still in the less acute cases of tetanus it seems to have arrested the progress of the disease.

Tuberculosis.—In all its various manifestations in man and animals this disease is now admitted to be caused by *bacillus tuberculosis*, discovered by Koch in 1880-2. Its common modes of infection are through the respiratory tract by inhaling the dried and powdered sputum of consumptives, and through the intestines by drinking the milk of tuberculous cows, less often by eating infected meat. Infection may more rarely occur through inoculation by wounds of the skin, and still more rarely through the sexual organs. In a very few instances it has been supposed to have been transmitted directly from parent to child.

Either at the beginning of the infection or at any stage in its progress other microorganisms may become associated with the tubercle bacillus in mixed infection, and their deleterious effects may even predominate in importance. Tuberculosis of the glands, bones or joints frequently become spontaneously arrested. The same is probably true also in from ten to twenty per cent. of cases of pulmonary tuberculosis. Natural cure or arrest is, however, the exception rather than the rule in the majority of cases where the lesions have advanced far enough for detection; nor is it likely that any permanent immunity is present in arrested cases. It is well known that many persons readily become infected a second time. At the same time it should be noted, as Koch believes, that even and perhaps chiefly in the very worst cases, as in miliary tuberculosis, a tendency to immunity is often exhibited; but the immunization process, if it be such, comes too late to prevent the fatal termination.

Regarding the preventive or curative treatment of tuberculosis by the injection of bacterial products, serums or attenuated cultures of the tubercle bacillus, the results so far obtained do not warrant the conclusion that the problem is destined to be solved in this way, although this view by no means lessens the necessity of continued endeavor until every conceivable method for the production of protective or curative substances has been tried.

Koch's tuberculins, which are doubtless the best of these substances as yet prepared, have not met generally with the success that was hoped for; and notwithstanding the fact that in selected cases, and in the hands of experts, a number of persons have been apparently cured or greatly benefited by several periods of treatment, in private practice the dangers of tuberculin have been considered, by most physicians, to be greater than its benefits. It is also probably safe to assert, in spite of much conflicting testimony on the subject, that there are no serums at present obtainable which have any decided value. Tuberculin, however, has proved to be of inestimable value as an aid to the diagnosis of obscure cases of tuberculosis in man, and particularly in cattle.

One of the most remarkable features of modern preventive medicine is the universal interest that has been aroused in the crusade against consumption. The practical results already obtained in places where active sanitary measures have been adopted, guarantees the belief that in this direction the hopes of even the most enthusiastic bid fair to be realized. A positive decrease in the prevalence as well as in the mortality of the disease has been effected in many of the larger cities of this country and elsewhere. This has been the case especially in New York and several cities of Germany and Great Britain, where the mortality from tuberculosis has apparently been reduced 50 per cent. during the last twenty years.

In combatting the disease our main weapons are: First, education of the public in personal hygiene, particularly the poorer classes who do not appreciate the chief dangers of infection, and in school and factory hygiene; second, the compulsory notification and registration of all cases of tuberculosis, by organized boards of health, —the importance of this again relates especially to the very poor and improvident from whom, after all, comes the greatest menace to the community, and who should be under constant control in order that the danger may be reduced to a minimum; and third, the establishment in suitable locations, by the State or municipality, of Sanatoria for the training and treatment of incipient cases, and of special hospitals for the care and isolation of chronic or incurable cases.

Leprosy.—This terrible and once much dreaded disease has many points of similarity with tuberculosis. It is caused by *bacillus leprae*, which closely resembles in form and staining the tubercle bacillus, and was discovered by Hansen in 1879. Infection takes place, it is generally assumed, through abrasions of the skin and the mucous membranes, but the disease, contrary to the popular ideas on the subject, is very feebly contagious, being transmitted slowly and with difficulty to persons exposed to infection.

Since the discovery of the cause of leprosy systematic efforts have been made to improve the condition of its victims and to promote the study of the circumstances under which it prevails. The British leprosy commission has done good work in calling attention to the widespread prevalence of the disease in India and in the East. In this country it was introduced into San Francisco by the Chinese, and into the Northwestern States by the Norwegians. There are also foci of infection in the Southern States, particularly in Louisiana, and in the Province of New Brunswick. The problem has acquired additional interest since the annexation of the Hawaiian and Philippine Islands, in both of which places leprosy prevails extensively. There is no known preventive treatment of the disease by bacterial products, but it can undoubtedly be curtailed by systematic measures of inspection and the segregation of infected individuals; nor is there any likelihood of its ever increasing among native Americans or getting such a foothold again in the world as it had in Biblical times or in the Middle Ages.

Influenza.—This disease as a distinct entity can be traced back to the 15th century and probably existed at a much earlier date. The last great epidemic reached Russia from the East in 1889 and gradually spread over Europe and to America, arriving in this country at the close of that year. Since then we have had more or less of it almost continually, and especially during the winter months. It is now known to be caused by a specific germ, *bacillus influenzae*, one of the smallest of observed bacteria, discovered by Phieffer in 1892. Infection is produced through inhalation of the dried nasal and bronchial secretions of infected persons.

The discovery of this bacillus has enabled us to explain many things, previously unaccountable, in the course of epidemic influenza. We now know, from the inability of the micro-organism to exist for long periods in dust, that the disease is not transmissible to great distances through the air. We also know that the infective material is contained only in the catarrhal secretions. Sporadic cases, or the sudden eruption of epidemics in any localities from which the disease has been absent for a long time, or where there has been no new importation of infection, may possibly be explained on the assumption that the bacilli often remain latent in the bronchial tubes for many months, and perhaps for years, and then become active again under favorable conditions, when they are transmitted to others.

Influenza bacilli are often found in association with other bacteria in mixed infections, particularly with pneumococci, streptococci and tubercle bacilli. While in itself not a very fatal disease, influenza certainly has increased the mortality from such diseases as pneumonia and tuberculosis, not only from its presence in these diseases but also from its well known effects in lowering the general vitality. Unlike most other acute infections, its incidence has not been diminished by sanitary or preventive measures, but its prevalence seems indeed to have increased. The nature of the disease, however, being now better understood than formerly, other therapeutic remedies are employed which strengthen the weakened vitality of the body, rather than the enervating coal-tar products, for example, at first so disastrously used in the treatment of this debilitating affection. No protective serum has been discovered which is of any value in protective treatment.

Diseases Due to the Pneumococcus.—Typical lobar pneumonia, as well as certain forms of pleuritis, pericarditis, endocarditis, cerebro-spinal meningitis, abscess, etc., are now known to be caused by the pneumococcus or *diplococcus pneumoniae*, discovered by Sternberg and Pasteur, independently, in 1870. It is present in the saliva of about 20 per cent. of healthy persons, but is not found outside the body except in sputum.

Pneumonia is another one of the few diseases which, despite all sanitary measures adopted up to the present time, not only holds its own but has increased in prevalence and severity. The mortality from pneumonia is second only to that from tuberculosis. It attacks particularly the intemperate, the old, and the feeble, though every year a large number of apparently robust and healthy persons succumb to its ravages. It is especially fatal following upon or accompanied by influenza.

We know the cause of the disease, and alas, only too well its symptoms, but the enormous mortality (from 20 to 25 per cent.) shows clearly the futility of our means for its prevention or cure. And yet no disease has sustained so great a revolution in its treatment. The patient is no longer bled to a point of physical exhaus-

tion or drenched to death with drugs as formerly, but measures of great value have been introduced for the support and stimulation of the heart, and especially the importance of a bountiful supply of fresh air has been recognized, in the modern treatment of pneumonia.

The sudden cessation of symptoms between the 5th and 8th day, which is frequently characteristic of pneumonia, has been considered by many to be due to the development of antitoxic or other protective substances in the blood; and it has been assumed, therefore, that this disease should be particularly adapted for the serum treatment. But, in the first place, it is by no means certain that this is the true explanation of the crisis, for all pneumonias do not terminate suddenly in this way; and we know also that many cases have added to the pneumonic infection a pneumococcic septicaemia at the very time when we should expect the development of protective substances. Moreover, experiments on animals have shown that it is extremely difficult to produce artificial immunity even by repeated injections of pneumococcic toxins.

An antitoxin, however, has been prepared from the blood serum of immunized animals and has been used in a large number of cases for the treatment of the disease in man, without, as a rule, any striking preventive or curative effect. Still the subject is one which demands further study and investigation.*

**Note:* Regarding the failure to obtain reliable serums in pneumococcus, streptococcus and other acute infections, the question is often asked, since the discovery of diphtheria antitoxin, how is it that one species of bacteria will produce an antitoxin while another will not? The most plausible explanation, perhaps, of this is offered by Ehrlich's theories, as follows: In such infections as diphtheria and tetanus, the toxins of the specific bacteria, in conjunction with certain activities of the protecting cells (the phagocytes; are liberated into the blood, where they give rise to so-called *antigens* (antitoxins, lysins, etc.). This class of toxins he terms *exotoxins*. In pneumococcus, streptococcus, and other infections, on the other hand, the toxins are bound up within the cell body of the germ,and these he calls *endotoxins;* in these infections the phagocytic cells are so taken up in neutralizing and absorbing these organisms that no antitoxins are produced to enable the more highly specialized cells of the body to cope with the infection.

Working upon this theory and on the assumption that the neutralizing substances are contained mostly within the bodies of the leucocytes, Hiss and Zinner (Journal of Medical Research, Nov., 1908) have conceived the idea of extracting these hypothetical substances from leucocytes and injecting them in a free state into the tissues of the body. They have thus prepared extracts of emulsified leucocytes, obtained from animals immunized against the pneumococcus, streptococcus, etc., and after having tried these extracts experimentally on animals, they have used them practically on man with quite gratifying results.

Streptococcus Infection.—The *streptococcus pyogenes*, which is one of a large group of spherical bacteria uniting in chains, discovered by Koch and Ogston, independently in 1882, gives rise in man to a number of inflammatory and suppurative processes, varying in kind and severity, according to the degree and quality of its virulence, the region and mode of infection, and the susceptibility of the tissues invaded. Thus it is frequently the primary cause of infection in erysipelas, acute abscess, cellulitis, lymphangitis, tonsilitis, sepsis, puerperal fever, etc.; less commonly in pleuritis, ulcerative endocarditis, pericarditis, arthritis, osteomyelitis, and the like. Associated with other bacteria, the streptococcus has also been found contributing to mixed infections in pulmonary tuberculosis, bronchopneumonia, scarlet fever, and septic diphtheria, playing an important part in these affections in the production of septicaemia and fever. Streptococci are among the most widely distributed of bacteria, having been found outside the body of man and animals in the air, soil and water, and in the air of surgical clinics. They have frequently been observed in healthy persons in the mouth, nasal cavities, etc.

Like in other infective processes, these micro-organisms are more likely to invade the tissues and produce inflammation and suppuration when the standard of health is reduced from any cause, and especially when by absorption or retention toxic products are present in excess in the body. For example, local streptococcus infections are more liable to occur as complications or sequelae in various specific diseases, in chronic alcoholism, in constitutional affections in those exposed to septic emanations from sewers, etc., and in cases in which there is absorption from toxic products formed in the alimentary canal as the result of ingestion of improper food, of constipation, etc.

It having been observed that in persons who have recovered from an attack of erysipelas there was a slight immunity to further infection, and also that in such persons malignant tumors apparently improved or disappeared after inoculation of the toxic products of the streptococcus, these observations have been made use of, within recent years, in the treatment of inoperable cancers by the artificial production of erysipelas through inoculation of pure cultures or of their toxic products. According to Coley, this treatment, in some cases of spindle-celled sarcoma, has been attended with considerable success. In carcinomata the results have been very slight.

Various attempts have also been made to produce protective or curative anti-streptococcus serums, obtained from immunized

animals (horses, sheep, etc.) for the treatment of streptococcus infections. But the results reported from the use of these serums (of which Marmorek's is perhaps the best) have been very variable, and on the whole unsatisfactory. The protective power of the serum is undoubtedly specific, but it soon loses this power and often is practically useless six weeks after its preparation. The same serum, moreover, does not confer immunity, apparently, to any other variety of streptococcus than the one from which it was derived. This is a great hindrance to its use, for in cases where we want most to use the serum, such as puerperal fever, septicaemia, ulcerative endocarditis, etc,, it is often difficult to make a bacteriological diagnosis from the symptoms, and in over one-half of the cases even the bacteriological examination, carried out in the most thorough manner, will fail to detect the special variety of streptococcus causing the infection.

The almost total abolition of childbed fever from our maternity hospitals and from private practice, has been one of the most remarkable triumphs of preventive medicine. In many institutions formerly the mortality after child-birth was 5 or 6 per cent., and sometimes, indeed, as high as 10 per cent.; today, owing to proper antiseptic precautions, the mortality has been reduced to 3 or 4 per cent., or even less. The recognition of the contagiousness of puerperal fever was the most brilliant work, perhaps, of Dr. Oliver Wendell Holmes, in 1843, although Semmelweiss, a few years later, further corroborated the fact. But the full realization of the causes of this disease was not reached until antiseptic methods had been put into practical use.

Cerebro-Spinal Meningitis.—This fatal epidemic disease is now known to be caused by the meningococcus or *diplococcus intracellularis meningitidis*, discovered by Weichselbaum in 1887. The prevalence of the disease in winter and spring, a time favorable to influenza and pneumonia, also suggests for this the respiratory tract as the probable mode of infection. It is not known as yet why meningitis follows in some persons and not in others, from infection of the mucous membranes. The diplococcus is often associated with the pneumococcus and streptococcus pyogenes in mixed infections.

An antitoxic serum, prepared by Flexner and Jobling from the blood serum of immunized animals by injections derived from many strains of the meningococcus, has been recently used in the treatment of the disease. According to the latest reports, the results obtained would seem to be most encouraging. The mortality, which without serum treatment varied from 50 to 85 per cent., has in a number of cases where the serum was used given a percentage of only 25 to 30. Holt considers that from being one of the diseases most to be dreaded, both on account of its high mortality and its sequelae, often worse than death, it seems probable that cerebro-spinal meningitis may become, like diphtheria, one most certainly controlled by preventive treatment. The injections are administered by lumbar puncture, and the diagnosis is confirmed by bacteriological examination of the fluid obtained from the spinal canal. This operation is easily performed and is attended with comparatively little danger. The serum itself also appears to be harmless.

Typhoid Fever.—This disease, peculiar to human beings, is caused by *bacillus typhosus*, discovered independently by Eberth and Koch in 1880. The mode of its infection is principally by way of the mouth and stomach to the intestines, through the ingestion of infected milk and water, and more rarely by eating raw oysters and clams or food contaminated by flies and other insects, or possibly by the inhalation or ingestion of infected dust.

In this, as in all infectious diseases, individual susceptibility plays an important role in the production of infection. There must be some disturbance of digestion, excesses in drinking, etc., or a general weakening of the powers of resistance of the individual, caused by poor food, exposure to bad hygienic influences, overcrowding, and the like, as with soldiers and prisoners, for instance, to bring about the conditions favorable for the production of typhoid fever.

After recovery from typhoid fever a considerable degree of immunity is present which lasts for years. This is not absolute, as about 2 per cent. have a second attack, but this attack is usually a mild one. Specific immunization against experimental typhoid infection has been produced in animals by the usual method of injecting at first small quantities of the living or dead bacilli and gradually increasing the dose. The blood serum of animals thus immunized has been found to possess bactericidal and feeble antitoxic properties. These characteristics have also been observed in the blood serum of persons who are convalescent from typhoid fever. An attempt has been made to utilize the typhoid serum for the cure of the disease in man; but although a number of individual observers (Chantemesse, especially) have reported good results, most consider that little or no benefit is derived from its use.

The employment of vaccines from killed

typhoid bacilli has been advocated by Wright as a protective inoculation in persons who are likely to be exposed to danger of infection. According to a recent report of the board of officers of the U. S. Medical Reserve Corps, Dec. 7th, 1908, it was found that the practice had been used to vaccinate about 15,000 men* in the English and German colonial armies, and complete and carefully compiled statistics had been collected, from a consideration of which the board was convinced that the vaccination was quite harmless and that it would be of great service in diminishing the amount of typhoid fever among troops, especially in time of war. It therefore recommended that the practice of vaccination be introduced into the regular and volunteer armies in time of war; and that in time of peace all the men be given an opportunity to be protected against the disease, and that special efforts be made to vaccinate as many of the Hospital Corps and Nurse Corps and any others especially exposed as possible. The immunity conferred lasts from one to three years.

Another important practical application of our knowledge of the specific substances developed in the blood of persons sick with typhoid fever, is the Widal or serum reaction as an aid to diagnosis. It is based upon the fact that living and actively motile typhoid bacilli, if placed in the diluted blood or serum of a patient suffering from typhoid fever, within a very short time lose their motility and become agglutinated into clumps. From an experience of twelve years of this test, it may be said that, though not infallible, when performed with due regard to the avoidance of every possible source of error, it is as reliable as any other bacteriological test at present in use, and is of the greatest value as an aid to the clinical diagnosis of irregular or obscure cases of typhoid infection.

Although preventive medicine can rightly claim to have successfully controlled this disease in certain localities and under proper hygienic conditions, especially where there has been a pure water supply and perfect drainage, still typhoid fever is very prevalent in this country. This depends mainly upon two facts: First, not only is the typhoid bacillus very resistent, but it may remain for a long time in the body of a person after recovery, and such persons in apparent good health may act as carriers of infection for months or even for years, exceptionally; second, and doubtless this is the essential factor in the prevalence of typhoid fever in our section of country, particularly in the rural districts, there is often an absence of proper sanitation. Many of our country districts have yet to learn the A. B. C. of sanitation. With some of the conditions favoring the persistence of typhoid infection we are not yet familiar, but the chief danger results from impure water supply in the smaller towns, local house epidemics due to infected wells, and milk outbreaks due to the infection of dairy farms.

The use of boiled water and of ice made from distilled water, the systematic inspection of dairies, the scrupulous supervision of the sources from which the water is obtained, an efficient system of sewage removal, and, above all, the greatest possible care on the part of physicians and nurses in the disinfection of the discharges of typhoid fever patients,—these are the measures necessary to reduce to a minimum the prevalence of typhoid fever.

Typhus Fever.—Notwithstanding the fact that nothing has yet been determined concerning the micro-organisms exciting this disease, no one of the acute infections in man seems to have been more dependent upon filth and unsanitary conditions, and none has been more benefited by modern hygiene or preventive medicine. Until the middle of the last century this disease prevailed widely in the larger cities, particularly in Europe, and also in jails, ships, hospitals and camps. It was more generally prevalent even than typhoid fever and much more fatal. With the gradual introduction, however, of drainage and a good water supply, and the relief of overcrowding, the disease has almost entirely disappeared, and is now rarely mentioned in the lists of mortality, except occasionally in a few of the larger and more unsanitary cities or ports.

Asiatic Cholera.—This disease, also peculiar to man, is still one of the scourges of the present times, having recently made inroads into Europe and America from India, its native home. It is caused by the "comma bacillus" or *Spirillum Cholerae Asiaticae*, discovered by Koch in 1883. Its mode of infection is through the mouth by drinking contaminated water, also possibly by eating food infected by flies, etc.

Not every one exposed to infection is attacked by cholera; according to the greater or less power of vital resistance of the body the same infectious material may give rise to no disturbance whatever, a slight diarrhœa, or it may lead to serious results. Furthermore, it may be accepted as an established fact that recovery from one attack of cholera produces individual immunity to a second attack for a considerable length of time.

Within the last few years Haffkine, in

*Reports had been received of about 100,000 men vaccinated, but in only 15,000 cases were statistics carefully collected.

India, has succeeded in producing an artificial immunity against cholera infection by means of subcutaneous injections of cholera cultures. In several hundred thousand persons whom he has inoculated the results obtained would undoubtedly seem to show a distinct protective influence in the prevention of the disease.

The cause of the disease and the conditions under which it is produced being known, cholera is not likely ever again to obtain a foothold in this country, as it undoubtedly can be controlled by modern preventive measures.

Bubonic Plague.—This disease, which in the Middle Ages became such a terrible scourge that it was known as the "Black Death," is also still one of the most dreaded of the great epidemic infections. It has, however, been confined principally to the East, Southeastern Europe, Asia and Australia. Both in China and India there have been outbreaks of great severity in the last fifteen years, and even in this Hemisphere, in certain of the ports of South America and the United States (San Francisco and New York) there have been some cases of recent years, especially among the Chinese. Judging from the readiness with which it has been checked and limited wherever it made its appearance in this country, there is very little risk that the plague will ever assume again its former devastating power. It is caused by a bacillus discovered by Kitasato and Yersin in 1894. Its mode of infection is by means of wounds of the skin, and through bites of infected fleas from rats having the disease, which are thought to be one of the chief factors in spreading the malady.

Haffkine, in India, has recently applied his method of preventive inoculation to bubonic plague, as he previously did with cholera, and apparently with equally good results. Yersin and Calmette have also prepared a serum by immunizing animals against plague infection by the repeated injection of dead cultures of the bacilli, and this serum has been employed in the treatment of the disease in man with promising results.

Smallpox.—The question as to the exciting factor in smallpox, according to some authorities, is still undecided, while others maintain that it is now settled beyond dispute. The latter consider that certain bodies found chiefly in the epithelial cells of the skin and mucous membranes in the specific lesions of the disease are protozoa and the cause of the infection. These minute "vaccine bodies" were first observed in 1892, and have since been studied and confirmed, especially by Councilman.

While not a great scourge like cholera and the plague, during the last century variola was one of the most prevalent and dreaded of all diseases. Few persons reached adult life without an attack. Today, though outbreaks still occur, it is a disease which is thoroughly controllable by vaccination. The protective power of the inoculated cowpox is not a fixed and constant quantity, as is well known. The protection may be for life, or it may last only for a year or two. The all-important point is this: that efficiently vaccinated persons may be exposed with impunity, and among large bodies of men (e.g., the German army), in which vaccination and re-vaccination is regularly practiced, smallpox is unknown.

It seems strange that after more than a hundred years of the beneficent effects of vaccination throughout the civilized world, there should be fanatics who still oppose it. But within the last few months from Boston, the very city from which Waterhouse first spread the blessings of vaccination over the United States, there have emanated a series of diatribes which, to say the least of them, are truly astonishing. This anti-vaccination delusion has become so strong that various Medical Societies in Philadelphia and elsewhere have deemed it necessary to begin an active campaign against it. In recent papers read on the subject, Doctors Abbott, Welch, and others, have produced some valuable statistical evidence of the efficacy of vaccination, which are worth repeating. Since the enactment, in Germany, of the law requiring the compulsory vaccination and re-vaccination of all persons, in 1874, there have been no epidemics of smallpox in that country. The disease is frequently introduced by foreigners, particularly on the frontiers, but it can obtain no foothold. In 1899, among a population of 54,000,000 in Germany, there were only 28 deaths from smallpox, and these occurred in 21 different districts, the largest number in any one district being three. In 1897, there were but five deaths from smallpox in the entire German Empire. The large German cities, Berlin, Hamburg, Breslau, Munich and Dresden, have a perfectly insignificant mortality from smallpox as compared with London, Paris, Vienna, and St. Petersburg, in all of which the vaccination laws are relatively lax.

In the 28 years before vaccination in London there died each year from smallpox, per 1,000,000 of population, 2,050 persons; during the 40 years following vaccination, per 1,000,000 of population, the smallpox deaths annually average 158. During the seven years preceding the introduction of vaccination in Prague, smallpox caused 1-12th of the total number of deaths; during the 20 years following the introduc-

tion of vaccination, smallpox caused but 1-457th of the total number of deaths. Between the years 1893 and 1897, in the Russian Empire, including Asiatic Russia, 275,502 persons died from smallpox; in Spain, 23,000; in Hungary, over 12,000; in Austria and Italy, over 11,000. During this period in Germany only 287 died, representing one death to every 1,000,000 of population a year. These figures, based upon reliable statistics, should surely be enough to convince any one of the efficacy of vaccination as a preventive measure against smallpox.

Venereal Diseases.—Unfortunately, in these diseases, although the causes and the conditions under which they are propagated are known, the problem of their prevention is one that still continues to embarrass the social economist and to baffle and perplex the sanitarian. The misery and ill health which they produce are incalculable, and the pity of it is that the burden is not alone borne by the guilty, but innocent women and children often share the penalties.

Gonorrhoea is caused by a biscuit-shaped coccus, the gonococcus of Neisser, discovered in 1879. Besides gonorrhoeal urethritis and vaginitis, the gonococcus is the infective agent in certain cases of endometritis, salpingitis, oophoritis, peritonitis, proctitis and cystitis, also of gonorrhoeal ophthalmia neonatorum, and rarely of diphtheritic conjunctivitis in children. It produces in adults severe conjunctivitis, and is frequently the cause of gonorrhoeal arthritis and malignant endocarditis.

Neisser has recently prepared a gonococcus vaccine for the treatment of gonorrhoea, which promises to give us a new and unexplored field of scientific investigation, but the results so far obtained are too limited to enable any definite opinion to be formed as to the value of the treatment.

Syphilis claims its victims still by the thousands in every rank of life, at every age and in all countries. It is now thought to be caused specifically by one of the protozoa or animal parasites, *spirochæta pallida*, first observed by Schaudinn and Hoffman in 1905, and since confirmed by Metchnikoff, Roux, Flexner, and others.

The venereal diseases are now treated more thoroughly than formerly, but they are so common and often so unheeded that all attempts to check their ravages have been futile. We have two important duties: the incessant preaching of continence to young men, especially of the far-reaching consequence of the infection; and the scrupulous care in every case not only that the disease may not be a source of infection to others, but that the patient may be saved from the serious late manifestions. It should also be urged, in the interest of public health, that venereal diseases, like other infections, shall be subject to supervision by the State. The opposition to measures tending to the restriction of these diseases is most natural; on the one hand from women, who feel that it is an aggravation of a shocking wrong and injustice to their sex, and on the other hand from those who are sensible of moral guilt in a legal recognition of the evil. But this, along with a campaign of education, particularly the latter, is the only practicable solution of this delicate and difficult problem.

Malaria.—Among the most remarkable victories of modern preventive medicine is the discovery of the cause of malaria. It is now known to be produced by a protozoon micro-organism, the plasmodium, first observed by Laveran in 1880, and afterwards studied and confirmed by Galgi, Ross, and others. Three distinct types are recognized, *plasmodium vivax* (tertian), *plasmodium malariæ* (quartan), and *plasmodium præcox* (aestivo-autumnal). The common mode of infection is by the bite of an infected malaria-carrying mosquite, called *anopheles*. But while it has been proven that infection occurs thus in the large majority of cases, there are some instances in which malarial infection seems to take place in other ways at present unknown.

The plasmodium in its earliest form is a small, clear, ring-shaped body, which is found on or inside the red-blood corpuscles, upon which it feeds, gradually increasing in size and forming within itself blackish grains (pigment granules) out of the coloring matter of the corpuscle. When the parasite attains a certain size it begins to multiply, and an enormous number of these, breaking up at the same time (segmentation), give off poison in the blood, which causes the paroxysms of fever. During the manifestation of the chill, in intermittent fever, for example, one can always find these dividing parasites. They differ in form according to the varieties of malaria, as before mentioned, tertian, quartan or aestivo-autumnal. The parasites reach maturity in the epithelial lining of the stomach of the anopheles mosquito, and develops into peculiar thread-like bodies (flagella), many of which ultimately penetrate a glandular structure in the thoracic cavity, the so-called salivary gland, which in turn is in immediate connection with the biting and sucking apparatus of the insect.

If now the anopheles sucks the blood from a person infected with malaria, it takes up a certain number of parasites which undergo the changes and development described in the body of the insect, the final outcome of which is the formation

of flagella, found in the salivary glands. Thus when such an infected mosquito bites another individual the lubricating fluid or secretion of its puncturing apparatus will carry the parasites into the blood and transmit the disease. Only the female anopheles bite; hence, they alone can be responsible for spreading the infection. They fly mostly at night or in the dusk of the evening, while the common mosquito or *culex*, which cannot carry malaria, flies often in the day time; and there are other physical differences between them, which have been thoroughly studied.

The importance of the studies regarding malaria cannot be overestimated. Among other hitherto obscure problems, they have explained the relation of the disease to marshy districts, the seasonal incidence, the nocturnal infection, etc. More important still, these studies have pointed out clearly the way by which malaria may be prevented: First, the recognition that any individual with malaria is a source of danger in a community, so that he must be thoroughly treated with quinine; second, the importance of the draining of marshy districts and ponds in which mosquitoes breed; and third, that even in the most infected regions persons may escape the disease by living in houses thoroughly protected from mosquitoes by nets in windows and doors.

Yellow Fever.—The results of the recent experiments of Reed, Carroll and Agramonte make it certain that yellow fever is transmitted by the bite of a mosquito, *stegomyia faciata*, in the same way that malaria is transmitted by the anopheles, although the specific organism causing yellow fever has not yet been discovered.

The following interesting facts are known regarding the stegomyia: It is spread over a wide range of territory, embracing many varieties of climate and natural conditions. It has been found as far North as Charleston, S. C., and as far South as Rio de la Plata. There is no reason to believe, therefore, that it may not be present at some time or other in any of the intermediate latitudes. Brackish water is unsuited for the development of the larvæ. The stegomyia seems to select any deposit of water which is comparatively clean. Defective drains along the eaves of house-roofs, open cisterns, and the like, are favortei breeding places; indoors they find an excellent medium in the standing water of cups and other vessels. Like other *culicidae*, to which family it belongs, it prefers to lay at night. It is eminently a town insect, seldom breeding far outside of the city limits, which explains the well-founded opinion that yellow fever is a domiciliary infection. Frost is invariably fatal to its life. It cannot stand drought, but the dry season in the countries where the mosquito seems to abound is never so much prolonged as to completely dry up the usual breeding places. Under suitable conditions it is a long-lived insect; a specimen has been known to live for 75 days after hatching in the laboratory. It has been definitely shown that a period of at least 12 days, at a temperature of 80 to 85° F., was necessary before the infected insect could transmit the disease; but a mosquito which had reached the age of 70 days was able to produce a case of yellow fever 57 days after it became infected. The stegomyia bites principally in the late afternoon, though it may be incited to take blood at any time of the day. The insects are abundant from March to September, and have been captured even in November. They are generally believed to be incapable of long flights unless materially assisted by the wind. Their tendency, at any rate, seems to be to remain restricted within very limited areas, unless carried afar by other means than natural flight. It has been observed that not all stegomyia mosquitoes which bite a yellow fever patient become infected, but that of several which bite at the same time some may fail either to get the parasite or to allow its later development in the body. How long do infected mosquitoes remain dangerous to the non-immune community? This is a question that cannot be positively answered at present, but there is good presumptive evidence that the insects may harbor infection through the winter, under favorable conditions, and be ready to transmit it in the spring, or that once infected they can transmit the disease at any time during the balance of their lives.

The brilliant practical results obtained in the prevention of yellow fever, since these investigations regarding the cause of the disease have been made, which have been demonstrated by the work of the U. S. Marine Hospital Service in Havana, New Orleans and Panama, render it certain that yellow fever will never again become prevalent in this country. In cities where all infected persons are immediately quarantined and efficiently isolated by protective netting, and all breeding places of the specific mosquito are drained or properly protected by screening (as open cistern, etc.) from the deposit of larvæ, there is no doubt that the disease can be controlled.

Rabies.—Until recently all of the numerous researches regarding the cause of hydrophobia have given negative results. The latest studies, however, make it probable that this disease may be added to the list of infections specifically caused by protozoa.

In 1903 Negri observed certain bodies in the large nerve cells throughout the central nervous system of animals dying of rabies, which he considers as belonging to the protozoa and the cause of the disease.

As is well known, the disease is transmitted to man by the bite of animals,—dogs, wolves, etc.,—through the medium of the saliva which contains the virus. The certainty with which the disease may be produced and its severity have been found to be governed by three factors: (1) The quantity of the rabic virus introduced; (2) the point of inoculation; (3) the strength of the virus as determined by the kind of animal which affords the cultivation ground for the growth of the hypothetical specific organism. It is a matter of common observation in hydrophobia in man that slight wounds of the skin, of the limbs, and of the back are often followed by the disease after an extremely long period of incubation; while in lacerated wounds of the finger tips, where small nerves are numerous or where the muscle and nerve trunks are reached, or in lacerated wounds of the face, the period of incubation is usually much shorter and the disease generally more severe.

The old treatment of rabies consisted simply in encouraging bleeding from the wound, or in first excising the wound and then encouraging bleeding by means of ligatures, warm bathing, cupping, etc.; the new surface was then freely cauterized with caustic potash, nitric acid, or the actual cautery. As it was often impossible to apply cauterization rapidly or deeply enough to insure complete destruction of the virus, Pasteur and others were led to study the disease experimentally in animals. It was shown (1) that the poison has certain fixed and peculiar properties in connection with the nervous system; (2) that susceptible animals could be rendered refractory to the disease, or incapable of taking it, by a certain method of inoculation, and (3) that an animal unprotected and inoculated with a dose of the virus sufficient to cause the disease may, by the injection of proper anti-rabic treatment, escape. These investigations finally resulted in the discovery of Pasteur's method of preventive inoculation in man. Since the commencement of this treatment in 1886 about 55,000 persons have been inoculated at the Pasteur Institute in Paris, with an average mortality of 0.77 per cent. as against a former mortality of 16 per cent. and over, before the treatment was discovered. The bites of wolves seem to be more fatal than the bites of dogs or other animals; the mortality of these, in spite of the most intensive treatment, is stated to be still 10 per cent., as against a previous mortality, without specific treatment, of 40 to 60 per cent. In view of the practical results obtained not only at the Institute in Paris, but in many other similar institutions, there can no longer be any doubt of the value of the anti-rabic treatment. But it should be begun as soon as possible after the bite has been inflicted, or at least within 14 days; even Pasteur's treatment appears to be of no avail when the symptoms of the disease have manifested themselves.

For more important, however, than any preventive treatment of hydrophobia in man is the prevention of rabies in dogs, through which the disease is usually conveyed. Were all dogs under legislative control and the compulsory wearing of muzzles rigidly enforced wherever hydrophobia prevails, this would soon become an almost unknown disease. * * * * * * * * * *

It would thus appear, from a review of the growth and development of preventive medicine, that modern sanitary science has already considerably reduced the prevalence and mortality of many of the infectious diseases. In former times four-fifths of all deaths and a corresponding number of diseases were due to preventable causes; but now owing to the adoption of improved methods of hygiene, both public and personal, and to the preventive treatment of disease by means of serum and other bacterial products, the death rate and at the same time the frequency of sickness, have been decreased to one-quarter of what they once were. And although much remains to be done in the discovery of the cause of some of the most typical infections, such as scarlet fever, measles, etc., in which the specific micro-organisms are yet unknown, and of methods for their arrest or cure, there is little doubt but that in the next generation we shall see a still further reduction of at least one-third more, and possibly in time to come the extermination of all of the distinctly preventable diseases.

This is surely a consummation devoutly to be wished for, both from a humanitarian and an economic point of view, and the medical profession certainly cannot be accused of self-interest or commercialism in what they have done and are constantly striving to do for the growth and development of preventive medicine. On the contrary, it is apparent that in their devotion to pure science and the good of the community, they have sacrificed and are continuing to sacrifice their individual interests unselfishly, and often with little or no compensation but that of virtue, which is its own reward.

In closing, therefore, I should like to ask you, Mr. President, in consideration of this fact, and of another equally as manifest,

namely, that of the increasing competition in the art and science of healing, not alone within the ranks of the regular medical profession, including its various adjuncts, the hospitals, sanatoria, dispensaries, and boards of health, but also in the so-called new dispensation treatment of disease, such as Divine healing, Christian Science, Faith and mind cures, Emmanuel movement, hypnotism, massage, osteopathy, hydropathy, and all the other cults and pathies, not to speak of the advertising quacks and charlatans,—who although not more numerous today, perhaps, in proportion to the population, than in times past, still count their votaries by the thousands,—I say that in contemplation of these undeniable facts, I should like to know what is to become of the legitimate practice of medicine or the general practitioner in the future, from a financial standpoint?

Physicians, like others, must live; but even now it is getting harder every day to make a living in the practice of medicine, and there is no relief in sight. The prospects are rather that the conditions will continue to grow worse. It is true, perhaps, that as the requirements for graduation and license become more exacting and difficult, while the emoluments of practice get comparatively less, fewer men may enter the medical profession, and an increasing number of those who do may devote themselves to research work or to a special official career.

But are all legitimate practitioners of medicine, with the exception of the specialists, to become ultimately merged into some protective system, some system of health preservation, like the health department system, for instance, under legislative regulation and control? This is not so impossible as it might appear. The health department system, as it already exists in many parts of this country, is "a centralized, autocratic organization, under State or municipal control, designed for the care of the public health." The word "autocratic," and the acts which it involves, would seem to be inimical to our basic principles as a democracy. But in this republic of ours there is a strong and growing tendency toward centralization and concentration of authority,—as is seen in many systems, syndicates and monopolies, in commerce and politics, as well as in boards of health. A few of us may declaim against this tendency, as being a usurpation of the rights of the individual, a restriction of personal liberty, a destruction of wholesome competition, and so on. Still however this may be in the main, when the concentration of authority is plainly designated for the common good, as in matters pertaining to the public health, it is not only accepted but generally welcomed by the American people, despite its exercise of arbitrary power, on account of its certainly beneficent results, *pro bono publico*, and simply because they are democratic.

I am no advocate of centralization in the abstract, nor special pleader of the health department system; but may not such a protective union, or "merger,"—to use the commercial parlance of the day,—be a possible outcome of the growth and development of preventive medicine?

Or, are medical services to be engaged and contracted for, on the co-operative plan, by societies and families, and physicians to receive annual salaries for regularly caring for the sick and preserving the health of their patients,—as is now largely done in Germany with the so-called "Kranken Cassen" and "Haus Artzt," and to some extent also in the United States by corporations, etc.? Or, are they to be paid only, like Chinese doctors, to keep people well, and not paid when they get sick?

But be this as it may, in view of the decreasing frequency of sickness, as shown by the records of vital statistics, and the waning private practice of physicians, which needs no demonstration, what is to be the future, Mr. President, of legitimate private practice in this country? In the evolution of the new school of treatment,—not to mention the rapid advance of progressive surgery, or the successful operative interference in many affections hitherto regarded as incurable—what is to become of the old-time general practitioner of medicine with his drugs and galenical preparations, when perfeced methods of modern sanitary science shall have arrested or prevented all infectious diseases and life shall be prolonged to a green old age?

NOTE.—In the compilation of this paper I have made liberal use of other articles and books written by others, as well as by myself.

Alcohol.

By Wm. deB. MacNider, M. D., Professor of Pharmacology in the University of North Carolina.

(From The Laboratory of Pharmacology).

(a) The Pharmacalogical Action of Alcohol.

(b) Logical Indications for the use of Alcohol as a Therapeutic Agent.

(c) Changes Produced Experimentally in the Blood Vessels of Rabbits Subjected to the Action of Alcohol.

The subject under discussion may he approached and studied with benefit from many points of view. At the present time a consideration of alcohol from a sociological view point would be of interest, but for many reasons, this side of the subject will be severely left alone.

Like many other questions of medical interest, the older they are, the more they are subjected to discussion and criticism, the more inreresting they become; especially in these latter years when they can be approached, studied, and in some cases solved by scientific methods of investigation. Such a statement is certainly true concerning this old yet often discarded drug—alcohol.

Occuring as it does free in nature, or at least, the elements which enter into its formation are free, namely ferments and starches, it was natural enough for the ancients to nse the drug as a remedial agent and as a beverage. Juding from the older writings the influence of alcohol upon the nervous system and the circulatory system, both in a dilute and a concentrated form, was well understood. The modern conception of the action of alcohol upon the body both before and after absorption, and in dilute and concentrated solutions, differs in some essentials and in many details from the views regarding its action which were held some years ago. This change has been largely due to the study of the drug from au experimental laboratory side. Approached in such a way, many of the confusing factors can be eliminated which exist in a very pronounced and exaggerated form at the bed side, which may mask and overshadow the action of a drug and render deductions which are seemingly logical fallacious. We frequently hear the remark that conclusions arrived at when the individual is eliminated from the equation must be of slight practical value. In this statement there is a pronounced element of truth which can with ease be discerned when we think of the influence the mind exerts over the various functions ot the body in health and in disease. This influence can not be considered as it should be and can not be appreciated in most laboratory work. The meatal status of an individual nsually plays but a feeble part in determining the action of a drug and on this account the pharmacological action of the vast majority of drugs can be scientifically determined and logical deductions for their use arrived at by laboratory experiments upon anesthetized animals.

THE PHARMACOLOGICAL ACTION OF ALCOHOL.

The action of alcohol when used externally depends upon the concentration of the solution employed. The stronger solutions, 80-95 percent, are not so strongly germicidal as the weaker, 30-40 percent, solutions. When the stronger solutions come in contact with the bacterial cell they produce a superficial coagulation of the albuminous material of the cell body which prevents the penetration of the drug and lessens its germicidal power. In addition to this direct germicidal action, alcohol, indirectly acts as a germicide by dissolving fatty material in and around the hair follicles and allowing a deeper and more perfect action of other germicides such as the bichloride of mercury.

The influence of alcohol on digestion, and the role it plays as a food are two questions which have been severely battered by laboratory investigations and clinical observations.

When the drug is used in a concentrated form it undoubtedly increases the amount of blood to the gastro-intestinal tube. This increased vascularity persists and as a result of its persistence leads to an over-production of mucous and a connective tissue hyperplasia in the mucous and sub-mucous coats of the stomach and intestines. The mucous which results from an increased blood supply to the mucous glands is readily decomposed by the intestinai bacteria with the formation of acids or fermentation. Just what part these acids play in chronic alcoholic auto-intoxication and to what extent they inaugurate the diffuse connective tissue overgrowth in the body, which is most marked in the liver, blood vessels, and kidneys is an intensely live question with whic : we hope to do something experimentally.

When alcohol is used iu small amounts and in a well diluted form before or during meals it acts to a less degree as an irritant but simply this action increases the amount of blood to the stomach and intestinal glands. As a result of the glands receiving more blood, their activity is increased and there is an increased output of digestive juices.

When alcohol is given undiluted with the idea in view of aiding digestion, it nndoubtly does harm, as the stronger solutions check the action of unorganized ferments.

Alcohol is readily absorbed from the intestines and is usually quickly oxidized into its final endproducts, CO_2 and H_2O.

The influence which this drug has after its absorption is the part of the alcohol question which has been most severely discussed by the laboratory student and clinician. As a result of the rapid combustion of the drug after its absorption it furnishes heat and energy to the body, lessens the combustion of fats and carbohydrates and in this way indirectly acts as a food. This point seems fairly well established and is generally accepted. The point concerning the action of alcohol which is still the subject of a lively discussion is whether or not it can be considered a circulatory stimulant. If alcohol be given to a healthy individual in a fairly strong solution it is the common ob-

servation that the heart quickens its action, there is an increased output of blood into the arterial system and the pulse tension is raised. A similar effect upon the circulatory system can be produced by other gastric irritants such as ammonia, ether, and capsicum. This stimulating action of the drug is very likely a gastric reflex. To determine this point we have on several occasions anesthetised a rabbit with Chloral Hydrate Solution and connected the animal's carotid artery to a mercury manometer so as to accurately record the arterial pressure. At intervals of 15 minutes a small soft rubber catheter was introduced into the animal's stomach and 30 c.c. of a 30 percent solution of Ethyl Alcohol administered. The heart's rate and the animal's blood pressure were recorded every five minutes. There was no appreciable rise in blood pressure and but a very slight acceleration of the heart. These experiments certainly support the belief that the acceleration of the heart after the use of alcohol is a gastric reflex from irritation and that when the reflexes have been abolished as a result of the anesthesia the quickening of the heart and the subsequent rise in pressure from alcohol does not occur.

I am firmly of the belief that there are certain infectious diseases in which alcohol is of the greatest value as a circulatory support. I do not say stimulant, for with the ordinary interpretation of this term it would convey a false meaning. In Pneumonia, Typhoid Fever, and more rarely Tuberculosis we frequently see patients with a fast heart, a soft, small pulse, rapid respirations, and muttering or maniacal delirum, In short these are outward manifestations of an over stimulated central nervous system. The stimulus is the toxin and it at first gives rise to this picture of stimulation. and unless it is stopped leads to over stimulation, fatigue, and a state of inactivity of the Central Nervous System which is manifested by a state of coma which frequently precedes death.

In such cases following the use of alcohol, especially in Pneumonia it is a common observation to note that the delirium lessens, sleep is induced, the heart's action becoming slower and stronger. The cells of the arterial nervous system are so depressed that they no longer respond to the stimulus of the toxin, the state of fatigue is prevented and the integrity of the cell is maintained. It has been clearly demonstrated experimentally by Dolly that as a result of overstimulation structural changes of a degenerative nature develop in the cells of the central nervous system and furthermore that these changes frequently lead to an actual rupture and death of the cells.

EXPERIMENTAL ARTERIO SCLEROSIS BY THE USE OF ALCOHOL.

As a result of the use of the higher animals for teaching and experimental purposes, there has developed in this country an enormous amount of literature along the line of experimental pathology. Such work is not only essential to the proper teaching of several of the rudimentary branches in the medical curriculum but it is the only way which many problems in pathology and pathological physiology can be approached and solved.

The blood vessels of the lower animals were early used as a field for such experimental work. Among the investigators who have attempted to produce atheromatous changes in the vessels are Josie, Fischer, Kurt, Klotz, and Miller. Various drugs and other agents have been employed but the most satisfactory results have been obtained by Miller who used solutions of Adrenalin and Physostigmine.

It is a well known fact that the majority of individuals who use alcohol continuously, develop some type of arterio-sclerosis. The severity of the process varies from a slight induration of the aortic valves and a few atheremato us patches in the aortic arch to a diffuse arterial sclerosis which exists in the peripheral vessels as the classical "pipe stem" arteries.

It was the object of our investigations, to determine first if such changes could be produced experimentally by alcohol in the vessels of the lower animals. Secondly to determine, if possible, if these changes were due, per se, to the alcohol or if other secondary factors entered into their production, and thirdly to attempt to find some remedial agent which would have either a direct or indirect influence upon the morbid process.

The rabbit was the animal chosen for this work as they are comparatively cheap and easy to handle. The alcohol was given by the stomach through a soft rubber catheter. For the first few days 25 c.c. of a 10 percent solution was given and after this the amount was increased to 50 c.c. and the strength of the solution to 20 percent. A few of the animals died from accidental causes. In those that lived the alcohol was continued for nearly eight weeks. At the end of this time the rabbits were killed by chloroform, complete post-mortems were held, and the heart, aorta, and iliac vessels were removed for microscopic study.

There were fourteen animals in this first series which were subjected to the action of Alcohol as described above. Of the fourteen animals the vessels of ten showed distinct evidence of some type of arterial degeneration. These changes varied greatly

as to the severity and location. In four of the animals the vascular changes were evidently early and consisted chiefly in a diffuse connective tissue overgrowth in the cellular stage, which affected principally the middle coat of the vessels but which was beginning to be more pronounced around the blood vessels of the middle coat, e. g. the vasa vasorum. This localization of young connective tissue around these nutrient vessels of the middle coat is important. For when the connective tissue reaches its fibrillary stage and contracts it will inevitably compress the lumen of the vessel which it surrounds and prevent an adequate amount of nutrition in the form of blood from reaching the media. This will aid, if not directly cause, degenerative changes of the middle coat.

In the vessels of three of the animals the most marked changes were to be found in the inner coat. This consisted in a subendothelial hyperplasia, which existed in patches, and which was most marked in the aortic arch. A few of the patches were loosing their nuclei, failing to stain and beginning to develop into atheromatus ulcers.

The aorta of the three remaining animals showed decided evidence of late degenerative changes. These changes existed as well defined punched out or scooped out atheromatous ulcers. Their location with one exception was in the arch of the aorta. The inner and middle coats of the vessel were always involved, the floor of the ulcer usually being formed by the outer part of the middle coat. In the aorta of one of the animals the ulceration was very extensive. The ulcers were large, had a scooped out appearance and were found in the abdominal as well as the upper aorta. The floor of one of these ulcers was formed by the outer coat of the vessel, which was bulged out on the surface as a sacculated aneurysm. A detailed account of this work has been published in The Archives of Internal Medicine. We feel certain that degenerative changes can be produced in the vessels of the rabbit by the use of alcohol. On account of the small number of animals used the report is preliminary in its character.

The question naturally arises, might not these changes which were found in the vessels have developed spontaneously and not be ascribable to the alcohol action.

To eliminate this possible source of error the vessels of eighteen presumably normal rabbits were removed and studied microscopically. In fifteen of the vessels there was no evidence of general or localized sclerosis. In the remaining three vessels there was in one a small round cell infiltration of the media. In the other two there were a few patches of thickening of the internal coat which were in the early stages of the formation of atheromatous ulcers.

The second point of this work was to determine, if possible, the cause of the vascular degeneration. The following observation, we hope will have some weight and throw some light on this side of the question. Those animals which did not develop arterial changes and those in which these changes were only slight, gained in weight under the use of alcohol, had good apetites, and showed no sign during life or at the post-mortem of gastro intestinal irritation; while those animals which developed the most pronounced vascular changes and those in which these changes were fairly severe, lost in weight under the use of alcohol, had a poor appetite, and a diarrhoea during most of the time the alcohol was being used. At the post-mortem such animals showed an acute diffuse enteritis of moderate severity.

All of the animals were receiving the same amount and the same strength of alcohol. Some developed gastro-enteritis and in these arterial changes were most pronounced. Others did not develop a gastro-enteritis and in these animals there was either no arteriosclerosis or the arterial changes were slight. Evidently some factor other than the alcohol per se has an influence in the production of degenerations of the blood vessels. Just what this is we are at present in no position to say. The apparent fact certainly affords an interesting field for speculation and investigation. It is not unlikely that in some individuals as well as in some animals alcohol causes an acute catarrhal state of the stomach and intestines. As a result of this increased amount of blood to the mucous glands of the stomach and intestine they become hyperactive and produce an excessive amount of mucous which is discharged into the intestine and here decomposes with the liberation of organic acids and other bodies which are absorbed and lead primarily to a chronic auto-intoxication, and secondarily to vascular degeneration.

CONCLUSIONS.

1. When used externally in weak solutions alcohol is directly and indirectly a germicide,

2. When used in weak solutions, in the stomach and intestine, it acts mildly as an irritant, increases the amount of blood to these structures, and increases the functional activity of the gastric and intestinal glands.

3. In strong solutions, by acting as a gastric irritant it reflexly increases the rate and perhaps the force of the heart beat.

4. After absorption it has no direct effect

upon the circulatory system but through its sedative action on the central nervous system it prevents the heart from being over stimulated and in this way is of distinct value in some of the acute infectious diseases.

5. Arterial degeneration may be produced in the lower animals by alcohol.

6. The degenerative vascular changes are likely not entirely due, primarily to the alcohol acting as such, but to the absorption of products from the intestine which the alcohol has indirectly caused to be formed.

Anaphylaxis and Its Relation to Practical Medicine.*

By Dr. R. N. Duffy, New Bern, N. C.

Modern medicine is the result of a combination of empiricism, genius and painstaking endeavor. A great many of our ideas and methods today were preconceived in master minds; others there are which were stumbled on. In the whole domain of modern medicine there are no more interesting subjects than infection, immunity and serum therapy and there is no better illustration of what genius and untiring effort, preceded often by empiricism, have done for scientific medicine than the history of these subjects. The greatest advances in the last half century of medicine have been made along these lines and the same will perhaps be true of the next half. There are such infinite possibilities and such alluring paths of study to the scientific investigator in these new fields, and so many yet unsolved problems that the vast number of experiments and the results here are not to be wondered at. Vaccination, the Widal reaction, diphtheria and tetanus antitoxin, tuberculin and mallein are the conspicuous but only a few of the results of this work.

Serum therapy is in fact, however, not new. Mithridates by taking gradually increasing doses of poisons established in himself resistance. It is stated also that he fed ducks with poisons and then proposed to use their blood as an antidote. Empiricism, here as elsewhere preceded rationalism. Vaccination was practiced and put on its present basis by Jenner long before the scientific explanation was given by Pasteur's work on fermentation, vaccination against anthrax, chicken cholora, swine plague and rabies A little later also the work of Koch and Metchnikoff, Nissen, v. Behring and Bouchard served to open up the portals of this vast new field.

Since the discovery of tetanus toxin by Brieger and Frankel and of diphtheria toxin by Roux and Yersin and the production of their specific antitoxins by Behring and Kitasato in 1890, the possibilities of this new method of treatment seemed indeed great and alluring, and much experimental work has been done towards producing specific sera in the treatment of the various infectious diseases.

There is scarcely a useful method of treatment in medicine which does not occasionally have its compensating disadvantages depending upon the many and variable factors which go to make up the sum total of results in the human organism. It has long been known that the blood of animals may be toxic to other animals when injected into their circulations. Horse serum has been used almost exclusively in the various inoculations that have been made in man on account of its comparative lack of such toxic qualities. Untoward results have been frequently noted, however. after these injections and sudden death even has occasionally been observed. These phenomena were at first not understood. Von Pirquet and Schick collected a number of cases in which the injection of horse serum into man was followed by urticarial eruptions, joint pains, fever, swelling of the lymph nodes, oedema and albuminuria. These symptoms appeared from eight to thirteen days after the injection of the serum. This reaction was termed by Von Pirquet and Schick "Die Serumkrankheit" or the "serum disease." It has been known almost since the discovery of diphtheria antitoxin that guinea pigs which have been used for the testing of the antitoxin die frequently when given a subsequent dose, but no importance was attached to the fact until 1905. However, when Ehrlich was visiting this country in 1904 Theobald Smith spoke to him about the phenomenon in guinea pigs and Ehrlich gave the problem to Otto to work out. His work on the subject was published late in 1905 just before that of Rosenau and Anderson, of the Hygenic Laboratory, who had been working on the subject at the same time. When Rosenau and Anderson first encountered the phenomenon they conceived the idea that there might be some relation between it and sudden death following injections of antitoxin in man. They also foresaw that the problem might have a close relation to immunity. Both of these hypotheses have been pretty clearly established.

Many observers before Rosenau, Anderson and Otto had noted the phenomenon,

*The above paper was written at the request of Dr. Watson S. Rankin, Secretary of State Board of Health of North Carolina, to be presented before the State Society. It is intended as a resume of Anaphylaxis from its inception to the present date, and no claim for originality on the part of the author is made for the data presented.

as we have said, but they did not offer a satisfactory explanation. As early as 1839, Magendie found that rabbits which had tolerated two intravenous injections of egg albumin without any ill effects, after a lapse of a certain number of days, died immediately after a further injection. Later workers with precipitins have frequently noted the same thing. Knorr, in 1895, found that guinea pigs develop an increasing sensitiveness to tetanus toxin. Hericourt and Richet, in 1898, found that they were not able to immunize dogs against eel serum, but that, on the contrary, the dogs developed an increasing sensibility and finally died. Behring and Kitashima, in 1901, found an increasing sensitiveness to tetanus toxin on the part of guinea pigs. Portier and Richet, in 1902, found that dogs given a very small dose of a glycerin extract of the tentacles of actinia, after a lapse of fifteen or twenty days, quickly succumbed to a subsequent injection. Athus, 1903 found that repeated injections of horse serum in rabbits at some days interval, even in small doses, were followed by results which were local or general and benign or grave according to the number and methods of the previous injections. Richet, in 1904-1905, again experimenting with actinia, found that if congestin and thalassin (two poisons extracted from actinia) were injected into dogs in doses so small as to cause no symptoms, that, after a lapse of twenty-two days, they became very sick or quickly died after a subsequent injection.

Von Pirquet and Schick (vide supra) in 1905, however, were the first to reach original and far reaching conclusions in regard to the phenomenon which they occasionally observed in man after injection of horse serum and which they termed the "Serumkrankheit." They showed the relation of the phenomenon to the hypersusceptibility observed in animals and indicated the importance of these facts in general pathology. They cited the well known tuberculin reaction as analogous.

Portier and Richet, in 1902, were the first to suggest the name Anaphylaxis to indicate hypersensitiveness to a poison. This term is now employed to indicate the state of hypersensitization of man and animals to proteid substances either poisonous or non-poisonous. Anaphylaxis, then, is a condition of exaggerated susceptibility of the organism to a foreign substance of proteid nature, which may or may not be poisonous.

Otto's work on the essential features of anaphylaxis was the first to appear. Otto designated the phenomenon as the "Theobald Smith" phenomenon. He demonstrated, what is now well known, the fatal result of a second injection of horse serum into guinea pigs. He showed that the phenomenon was not due to the presence of diphtheria toxin in the circulating blood but that the presence of these toxins renders the animals more susceptible than the injection of horse serum alone. He demonstrated that immunity to the reaction might be obtained by repeated injections of large amounts of serum at short intervals. He also demonstrated that specific precipitins played no part in the reaction.

The most complete and brilliant work on anaphylaxis has been done by Rosenau and Anderson of the Hygienic Laboratory of the U. S. Public Health aad Marine Hospital Service. They have shown that, although a single injection of horse serum is usually harmless to a normal guinea pig, a second injection after a definite interval is usually fatal. The length of time necessary between the first and second injections they termed the "incubation period," and this was found to be about ten days. They demonstrated, as Otto had done, that the poisonous property of the serum bore no relation to the specific toxins or antitoxins in the serum. They found that the poisonous principle was specific and that the reaction would occur only after a second injection of an homologous serum. They demonstrated that a guinea pig may be sensitized to several different proteids at the same time and react to a second injection of each, provided of course the first reactions were not fatal. Haemolysis was excluded as a factor and also precipitin formation, which Otto also demonstrated. They advanced the theory that the substance which sensitizes the guinea pig is the same which later poisons it and that perhaps profound chemical changes in the central nerve cells take place after the first injection. They have not been able to isolate the sensitizing substance but they have shown that it is unaffected by the various chemical preservatives: by drying; by precipitation with amonium sulphate or magnesium sulphate. It is not affected by heating to 60 degrees Centigrade for thirty minutes. Thyroidectomy and splenectomy have no effect on the reaction. The blood serum of sensitized animals contains the poisonous substance ("anaphylactin") as is demonstrated by the fact that normal guinea pigs may be rendered anaphylactic to horse serum by the injection of the serum of sensitized pigs into their circulations.

Rosenau and Anderson have shown further that the toxic principle *is destroyed* by heating at 100 degrees Centigrade for twenty-five minutes. It is not affected by various chemicals nor alkaloids and similar

substances such as taka-diastase, pancreatin, rennin, myrosin, invertin, emulsin, pepsin in acid or alkaline solution, inglu-vin, malt, papain, stropin, strychnin, morphine and caffein. It is not affected by freezing at 15 degrees Fahr. nor by filtration through porcelain, drying, precipitation and dialysis, and exposure to the X-rays. Extremely minute quantities of the serum may cause death in the guinea pig, e. g., .1 cc.

A certain time must elapse between the injections before the animal becomes anaphylactic. This period is from ten to twelve days. Second injections within this period have no ill effect. When an animal has once entered into the condition of anaphylaxis it apparently lasts as long as the animal lives.

Rosenau and Anderson, as well as Otto, have shown that guinea pigs may be rendered anaphylactic by feeding them meat or serum. It is interesting along this line that Uhlenhuth has found that the blood of rabbits becomes capable of precipitating egg albumin after feeding for some time with this substance and Metalnikoff has reported immunization after feeding one animal with the blood of another species.

A most interesting fact also has been worked out by Rosenau and Anderson and that is that the hypersusceptibility developed in a female guinea pig may be transmitted directly to her young. This transmission is solely a maternal function. The milk of the mother was entirely excluded as a factor in the transmission.

Rosenau and Anderson have shown also that guinea pigs may be actively but not passively immunized against anaphylaxis; in other words, anti-anaphylaxis may be induced. This may be arrived at by (1) repeated injections of serum during the period of incubation; or (2) by recovery from a reaction due to a second injection during the stage of anaphylaxis. Besredka and Steinhardt question this condition as a true immunity, but think it rather a return of the sensitized guinea pig to the normal state. Gay and Southard also rather think that the guinea pig is in a "refractory" condition due to a prolongation of the period of incubation rather than that they have been actively immunized. Rosenau and Anderson, however, believe that the condition is one of true immunity.

Another most interesting phase of this subject is the induction of immunity to specific bacteria by rendering animals anaphylactic to the proteids of the bacteria. This Rosenau and Anderson have been able to do in the guinea pig with extracts of colon and typhoid bacilli. They failed to obtain immunity in their experiments with anthrax. It thus seems that here, as in antitoxic immunity, there is no law applicable to all cases, but that there are certain limitations which it will be necessary to work out.

The explanation of anaphylaxis is not certain. Several theories have been advanced. As stated previously, Rosenau and Anderson believe that the substance which sensitizes the guinea pig is the same which later poisons it and they think that profound chemical changes probably occur in the central nervous system as a result of the first injection. Vaughan, in 1906, explained the phenomenon by an application of Ehrlich's side chain theory. He thinks that the first injection of the strange proteid is broken up into components, one of which is toxic, but this breaking up takes place so slowly that the animal is not poisoned. The body cells, however, learn by the first injection how to break up the complex molecule. When the next injection is made, then, the proteid is violently disrupted and the large quantities of toxic principle thus liberated cause poisoning. Vaughan and Wheeler, in 1907, elaborated this theory further by studies upon white of egg and bacterial proteids. They believe that in the case of white of egg the poisonous portion so influences certain cells of the body that a new ferment, in the form of zymogen, is elaborated which remains in the cells and takes part in the rapid breaking up of the proteid molecule at the second injection.

Gay and Southard found in guinea pigs dying from a reaction and in those chloroformed that had previously recovered from a reaction what they consider as characteristic lesions. They found considerable haemorrhages, in one or several organs, both macroscopic and microscopic. Gastric haemorrhages were especially frequent. They also found fatty changes in voluntary muscle fibres, heart muscle fibres and in nerve fibres. Their explanation of anaphylaxis is that there is a substance in horse serum, which they call anaphylactin, which is not absorbed into the tissues, is not changed and is very slowly eliminated. Thus, after an injection of horse serum, anaphylactin remains and acts as a constant irritant to the body cells so that their activity for the other elements of horse serum is greatly increased. At the end of two weeks constant stimulation by the anaphylactin, if another injection of serum is given, the cells are overwhelmed in the exercise of their increased assimilating functions and functional equilibrium is disturbed to such an extent that either local or general death occurs.

Besredka and Steinhardt think that anaphylaxis and anti-anaphylaxis are phenom-

ena similar to the precipitating and absorbing actions which govern the relation of colloids among themselves.

Otto believes that, according to the side chain theory, the first injection results in a weakening or disappearance of the portions of the antigens which are in the body, and thus an apparent hyper-susceptibity results.

Richet thinks that anaphylaxis is due to is due to the presence of a toxicogenic substance, non-toxic itself, but producing a a poison by reaction with a second injection of the extract. He supports his view by experiments with a mixture of the serum of a sensitized dog and the extract in *vitro*. He claims that this mixture is more toxic than the extract alone.

So much for a review of the phenomenon itself. We are now lead inevitably, as in all subjects pertaining to medicine, to the question of its practical nature and we immediately enter an alluring field of surmise and speculation. How much is true and how much is false it remains for further investigation to thrash out.

There are certain differences as well as similarities in the reaction in man and the guinea pig. In five or ten minutes after an injection in the pig there are symptoms indicative of respiratory embarrassment; scratching at the mouth, coughing and sometimes spasmodic, rapid or irregular breathing; the pig becomes restless and agitated. This stage of exhilaration is soon followed by one of paresis or complete paralysis. Spasmodic, jerky and convulsive movements now supervene. Pigs in this stage may recover but usually convulsions appear and are almost invariably a forerunner of death. The symptoms do not always follow in the order given. Death usually occurs within an hour and frequently in less than thirty minutes.

A single initial dose in man may be followed by a reaction, but never is this so in a guinea pig. Both, however, react to a second injection. In man the symptoms very greatly in kind and intensity. As a rule, the major symptoms come on a few minutes after the injection but in a less severe form the onset may be delayed for an hour or two. In the milder form there is a feeling of faintness, substernal pain, some difficulty in breathing, paroxysmal cough, sneezing and itchiness, particularly of the scalp. An annoying urticaria, oedma of the face and swelling of the tongue may occur, also nausea and vomiting in some cases. In addition to an increase in intensity of the above symptoms, in the severer type the patient becomes cyanotic; shows signs of collapse; may froth at the mouth aud there is a feeling of impending death. In the most severe forms there develop paresis or paralysis and convulsive movements, as in the guinea pig, and death rapidly follows. Wiley and Gillette each have recorded a fatal case during the past year. Landis has reported a series of seven cases of untoward symtoms following the use of Maragliano's anti-tuberculous serum. Waterhouse records a personal experience of sensitization following the use of antistreptococcic serum. Schmitt reports a personal experience in which he had moderately severe symptoms following a prophlactic injection of diphtheria antitoxin. A curious instance about this case is that he is always subject to asthmatic attacks when exposed to the odor of horses. Boone has had a similar experience; Wiley's fatal case was affected in like manner manner when about horses, and this has been true of many of the reported cases. Gillette's fatal case had been subject to asthma for years. During the past year, F. L. Taylor, Quigley, Drefoos and Thomas have each reported cases of collapse following the injection of antitoxin, but none of their cases were fatal.

V. Pirquet and Schick, as stated previously, have collected a number of cases in which the symptoms following the antitoxin were very mild and developed only after an interval of from eight to thirteen days. The symptom-complex in these cases they designated as the *Serumkrankheit*. As mentioned before, these cases usually exhibit urticarial eruptions, joint pains, fever, swelling of the lymph nodes, oedema and albuminuria. The urticaria may persist for months, as in a case reported by Blain. V. Pirquet and Schich have shown that the first injection renders the individual sensitive to future injections, so that, if a second injection is given in from fourteen days to four months after the first, a reaction occurs almost at once or at least within twenty-four hours. They call this the "immediate reaction." If the second injection is given after a period of four months, the reaction, while delayed from five to eight days, occurs earlier than the first reaction, and this they term the "accelerated reaction."

Royer has collected thirty cases illustrating the effects of a second injection of diphtheria antitoxin in man. He thinks there is little doubt that second injections of serum, after considerable intervals of time, cause immedate disturbance several days earlier than that met with as a normal reaction.

The "immediate reaction" of V. Pirquet and Schich, according to accumulated statistics, occurs in from 18-27 % of cases receiving injections of antitoxin; the "accel-

erated reaction," in probably 30-40 % of the cases. These reactions are annoying but in no case have they resulted in death. From the accumulated experience of others it has been found that daily injections of serum for a period of several days in no way increase the disturbances which are commonly expected about the eighth or tenth day; that with a day interval between injections the rashes and febrile disturbances are more marked; three day intervals cause still more marked symptoms; and with four day intervals graver disturbances may be the result.

In the guinea pig, as we have noted, immunity to anaphylaxis may be secured in one of two ways. Either by repeated injections of serum before the expected time for anaphylaxis to become established or by the recovery of the pig from a second injection during the stage of anaphylaxis. In man, however, contrary to what one finds in guinea pigs, the evidences of hypersusceptibility are very variable in the time of their appearance and, furthermore, repeated injections in the first ten days do not develop immunity nor does recovery from a reaction render one immune to further injections.

Currie, after studying the effects of repeated injections of horse serum in patients at the Glasgow Fever and Smallpox Hospital at Belvidere, concludes that it is apparent from the facts detailed by him that repeated injections of horse serum induce symptoms of hypersusceptibility in man, but it is also apparent that the same facts lend no countenance to the suggestion that the death of persons suffering from diphtheria is to be apprehended as the result of repeated injections of antidiphtheric serum.

The fact that guinea pigs may be sensitized by feeding them with horse meat or horse serum brings up the interesting question of the cause of certain cases of apparent food poisoning in man. If man can be sensitized, like the guinea pig, by eating certain proteid substances, perhaps those interesting and obscure cases which one occasionally sees of sudden and sometimes serious symptoms habitually following the eating of fish, sea foods of various kinds and other articles of diet may be but a reaction of an individual in a state of anaphylaxis towards the article eaten.

Again, the maternal transmission of anaphylaxis in guinea pigs is of great interest in connection with the question of increased susceptibility in man to certain infectious diseases, particularly tuberculosis. One often sees families in which tuberculosis acts as a veritable scourge and the members of such a family seem to have no resistance to infection. May not these cases be due to inherited hypersusceptibility from the mother; in other words, inherited maternal anaphylaxis? This maternal transmission of anaphylaxis may also explain the sudden and sometimes fatal symptoms previously mentioned which one occasionally sees after first injections of horse serum in man. The demonstration of this maternal function in guinea pigs by Rosenau and Anderson is the first actual proof of inherited hypersusceptibility. Inherited immunity has, as is well known, been previously demonstrated to be a fact.

The fact that Rosenau and Anderson have been able to render guinea pigs immune to typhoid and colon bacilli by rendering them anaphylactic to proteid extracts of the specific bacteria opens up a new line of investigation into the specific treatment of these and other infections. Passive bacterial immunity may be now a much easier problem than it has heretofore.

The time required for the development of anaphylaxis in the guinea pig and in cases of the "Serumkrankeit" in man bears a close resemblance to the period of incubation of some of the infectious diseases and anaphylaxis thus gives a possible explanation of this period. It is hardly a coincidence that the ten to fourteen day incubation period of a number of the infectious diseases corresponds so closely with the time required to sensitize a guinea pig to a foreign proteid. In those infectious diseases with a short incubation period, like pneumonia, the crisis which usually occurs about the tenth day may have a similar explanation. Those diseases which are produced by soluble toxins, as tetanus and diphtheria, evidently do not come in this same category.

Finally, in regard to the injection of antitoxin in view of the new light which we have received on this subject by this recent work on anaphylaxis, nothing so far published should change our duty to a patient suffering from diphtheria or tetanus. Antitoxin should be administered freely and should be given at frequent intervals. as it has been shown (vide supra) that the untoward effects increase in severity with the length of the interval between the injections. A fatal result is most unusual, but it must be admitted that symptoms of collapse and even death may extremely rarely occur after an initial dose of antitoxin, but, in view of the seriousness of diphtheria and tetanus and the marvellous effect serum therapy has had in reducing the mortality of diphtheria especially, we should not hesitate in the administration of antitoxin. However, as has been previously brought out, asthmatic patients seem to be particularly prone to the serious untoward

effects of antitoxin treatment and these cases had best be avoided. Gewin, in a series of 200 patients given injections of diphtheria antitoxin, gave every alternate patient calcium, gr. 7 1-2 to 15, by mouth when the antitoxin was injected. He claims that in those patients receiving the calcium chloride there was either no disturbance at all or, at the most, very slight. It would, therefore, perhaps, be wise to give calcium chloride with every injection of antitoxin as a prophylactic measure, and, wherever possible, the administration of the calcium chloride should precede the antitoxin.

There is still much work to be done on this most important subject and the future will probably bring out many interesting points along this line. Rosenau and Anderson believe that the results so far obtained show that anaphylaxis has a practical significance in the prevention and cure of certain of the infectious diseases and that this is true we hope may be shown in the nearby future.

In conclusion, I wish to thank Dr. John F. Anderson of the Hygienic Laboratory of the U. S. P. and M. H. Service for much valuable assistance in furnishing me with literature and references.

Bibliography.

Rosenau and Anderson, Journ. Infect. Dis., vol. 5, No. 1, Jan. 1808.

Rosenau and Anderson, Bull. No. 29, Hyg. Lab., U. S. P. H. and M. H. Serv., Washington, 1905.

Roseuau and Anderson, Journ. Med. Res., 1906, 10, p. 179.

Rosenau and Anderson, Journ. Am. Med. Assoc., 47, p. 1007, 1906.

Rosenau and Anderson, Bull, No. 36, Hyg., Lab., U. S. P. H. and M. H. Serv., Washington, 1906.

Rosenau and Anderson, Journ. Res., p. 381, 1907.

Rosenau and Anderson, Journ. Infect. Dis., 4, p. 552, 1907.

John F. Anderson, Bull. No. 30, Hyg. Lab., U. S. P. H. and M. H. Serv., Washington, 1906.

John F. Anderson, Jour. Med. Res., 10, p. 241, 1996.

John F. Anderson, Ibid, 259.

Ricketts, Infection, Immunity and Serum Therapy.

H. R. M. Landis, Progress. Med., Vol. 10, No. 4, Dec., 1908.

Knorr, Habilitatiouschrift, 31pp., 8pls., 800, Marbourg, 1905.

Hericourt and Richett, Com. rend. soc. biol., 53, p. 137, 1898.

Behring and Kitashima, Berl. klin. Woch., 38, p. 157, 1901.

Portier and Richet, Compt. rend, sec. Biol. 54, p. 170, 1902.

Arthus, Ibid., 55, p. 817, 1903.

Richet, Arch. di fisiol., 1, p. 129, 1904.

Richet, Compt. rend. soc. biol., 58, p. 109, 1905.

Richet, Ibid., p. 112.

Dr. C. Von Pirquet and Dr. B. Schick, Die Serumkrankheit, Leipzig, 1905.

R. Otto, Das Theobald Smithsche Phanomen der Serumueberumpfindlichkelt. v. Leuthold-Gedenschrift, 1 Band, 1905.

McClintock and King, Journ. Infect. Dis., 3, p. 700, 1906.

Currie, Journ. Hyg. 7, p. 35, 1907.

Besredka and Steinhart, Ann. de l'Inst. Past., 21, p. 117, 1907.

Nicholle, Ibid., p. 128.

Besredka, Compt. rend. soc. biol., 62, p. 447, 1907.

Besredka, Ibid., p. 1053.

Besredka and Steinhardt, Ann. de l'Inst. Past., 21, p. 384.

Besredka, Ibid., p; 777.

Besredka, Revue Medico-Sociale, 2, p. 10, 1908.

Vaughan, Journ. Am. Med. Assoc., 47, p. 1009.

Vaughan and Wheeler, Journ. Infect. Dis., 4, p. 476, 1907,

Gay and Southard, Journ. Med. Res., 16, p. 143, 1907.

Otto, Munch. Med. Woch., 55, p. 1665, 1907.

Richet, Ann. de l'Inst. Past., 21. p. 497, 1907.

Goodall, Journal. Hyg., 7, 607, 1907.

Uhlenhuth, Deut. Med. Woch., 26, p. 734, 1900.

Metalnikoff, Centralbl. f. Bakt., 29, p. 531, 1901.

Vallee, Med. Vet., 84 p. 308.

Petet, Compt. rend. soc. biol., 63, p. 296, 1907.

Landis, Therapeutic Gazette, Nov., 1908.

Waterhouse, British Med. Journ., Apr. 18, 1908.

Wiley, Journ. Am. Med. Assoc., Jan., 11, 1908.

Schmitt, Ibid., Feb. 22, 1908.

Boone, Ibid., Feb. 8, 1908.

Gillette, Ibid., Jan. 4, 1908.

Quigley, Ibid., Mch. 7, 1907.

Dreyfoos, Ibid., Sept. 5, 1908.

Thomas, Ibid., July 4, 1908.

F. L. Taylor, Med. Record, July 4, 1907.

Blain, Ibid., June 6, 1908.

Royer, Therapeutic Gazette, June, 1908.

Gewin, Munch. med. Woch., 51, p. 2670, 1908.

Acute Rheumatism in Childhood.—Colman, in The Edinburgh Medical Journal, reaches the following conclusions as to treatment:

The first treatment is rest, bodily and mental, absolute and prolonged. The duration must vary according to circumstances, but it is better to overdo it rather than the reverse.

Opinion varies greatly as to the value of salicylate of soda in endocarditis.

In cases such as the author has reported he is firmly convinced of the great value of the drug. Strychnine and digitalis are valuable, especially the latter, but its use requires careful and daily watching. Small doses of bromide he has found most useful in the early stages; these children are usually excitable, and the bromide enables them to rest much better. Later, the necessary drug is iron, given with or without the salicylates. He prefers the ammoniocitrate of iron, but probably any easily assimilated preparation is equally good. He has found that both iron and salicylates are readily taken by children in ordinary aerated lemonade, and given in this way, medicine time is looked upon by these children as one of the most pleasant episodes in a weary illness.

As to diet, the author needs only to say that it should be simple and nutritious, and that every care should be taken to avoid any flatulent distention.

The Ophthalmo Reaction in Typhoid.—Meroni (Munch. Med. Woch.) has investigated the ophthalmo typhoid reaction of Chantemesse. The author made use in his trials of a virulent strain of typhoid bacilli cultivated in brothr The culture was treated with excess of absolute alcohol. The precipitated toxin was separated from the rest of the culture by infiltration, and dried in vacue. A solution was then made of 1 gram of this dried substance in 10 c.cm. of sodium chloride solution, and two drops of this liqvid were instilled in the lower eyelid in the cases tested. A large series of experiments were performed, and the following are the principal conclusions: (1) The ophthalmo-reaction with typhoid toxin may give a positive result after six hours not only in cases of typhoid but also in other diseases; (2) after twenty-four hours the reaction is positive only in typhoid, a negative result is against the condition being typhoid; (3) the instillation of typhoid toxin produces no harmful results; (4) the ophthalmo-reaction in typhoid, though not absolutely reliable, is of practical value in diagnosis.

Calcified Fibromata.—Pinard (Bull. Med.) mentions a case of uterine fibroid which has caused eighteen years of sterility, and after the menopanse, at the age of sixty-eight years, caused hemorrhage. A part of that hemorrhage effusion being retained within the uterus, which was displaced by the calcified fibroid, it became infected and caused symptoms of septicemia. Examination showed a hard tumor filling the pelvis, which consisted of a calcified fibroid, having only a thin shell of fibromuscular tissue around it. According to this author, the fibroid is a parasite which is never observed before puberty or after the menopause, except when it has existed during genital life. He believes that these growths result from the nonfertilization of ova and sterility. They occur only in women who do not conceive. The prophylactic treatment recommended is that every woman should be impregnated before the age of twenty-five. Each fibroma arises around a single capillary. Microbic action has nothing to do with it. The endothelial cells of the capillary remain intact, while the adventitia develops embryoual cells. Under the influence of an unknown force these cells change and differentiate, becoming muscular. These muscle cells may develop into connective tissue and fibroid elements. Fibromata never give symptoms except from pressure on the other organs contained in the pelvic. They never undergo cancerous degeneration, but may become fatty or calcareous. In some cases phenomena of necrobiosis develop. In gestation they may soften or remain stationary. If the growth is already fibrous, it remains stationary during pregnancy. If it is still soft, lactation may cause retrogression and involution according to the author. Pinard believes that the ordinary means of treatment of fibroids are useless. Electricity has not given him good results. He uses simply hot douches of six to ten liters of water at 50° C. twice a day.

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

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CALCIUM SALTS AND BODY METABOLISM.

A study of the therapeutic and physiologic action of the salts of calcium had led to some very important contributions to our knowledge of the part played by this metal and its salts in the body economy. Physiology has taught us that it constitutes one of the factors in the process of blood coagulation, a fact which has enabled us to treat hemorrhage and the hemorrhagic conditions rationally and successfully by the administration of calcium salts. In pathology we learned that deposits of calcium salts occur in the tissues under certain circumstances. When a tubercular focus becomes quiescent, calcification takes place therein. Muscles whose trophic nerve supply has become diseased, as in infantile paralysis, contain more than the average amount of lime salts. A degenerated ganglion cell of the brain is liable to become transformed into a complete lime cast, owing to calcium salts being precipitated uarond it. The calcification of arteries in senility is a very familiar fact.

An investigation into the physiology of the female genital organs, by Drs. Bell and Hick, has led the somewhat startling conclusions concerning the functions of calcium in the body. They found that the normal regularity of menstruation depends upon calcium metabolism in the tissues. The uterine glands excrete calcium and mucin; during menstruation local changes occur in the uterine capillaries from which leucocytes and red cells escape. These escaping leucocytes carry with them calcium salts from the uterine glands and excrete them. These conclusions have led to the employment of calcium salts for quite a new purpose. Thirty grains of calcium lactate every other day is found beneficial in amenorrhoea following acute or debilitating diseases, the assumption being that there is not enough calcium in the system to permit of menstruation. When this function is established the calcium content of the blood falls, but it soon rises again to a level sufficiently high to stop the hemorrhage. But if this rise in the calcium content does not occur, then the hemorrhage does not cease, but menorrhagia results. Therefore calcium salts are indicated in cases of two profuse menstruation. Sir James Barr, in a lecture on *Mitral Stenosis*, has advanced an original conception of this condition which is valuable from both a pathologic and therapeutic standpoint. Of course rheumatic endocarditis is the underlying condition, but the actual evolution of mitral stenosis probably depends upon an excess of calcium ions in the blood. When these are present in excess the sclerotic changes which follow inflammatory processes are apt to be carried to an extreme degree. Calcium salts also raise blood-pressure, they increase the force of the cardiac contractions, give rise to hypertrophy of the papillary muscles, cause violent collision of the mitral cusps, increase the formation of fibroid tissues and gradually cement and unite the edges of the cusps together. This consideration conveys its lesson for the treatment of the earliest stages of mitral stenosis and also for the antecedent endocarditis before the valvular disease has become established.

It is obvious that a contracted mitral orifice offers a greater obstacle to the passage of the blood if the latter is thick, viscid, and easily coagulable. Blood containing an excess of calcium ions is liable to get into this condition, and thus add to the difficulty under which the circulation is laboring. Fortunately there is a remedy at hand to counteract this—in citric acid. Administered three or four times daily in doses of thirty grains, it washes the calcium salts out of the blood and confers upon it a greater fluidity.

These are but a few of the many interesting considerations in regard to calcium and its salts. That it does play a most important part in the metabolism of the body is evident. Lack of space precludes further elaboration. We would refer the reader, however, to recent issues of *Folia Therapeutica* in which are found some very valuable information along this line.

CONCERNING THE HOUSE FLY.

The House fly, *Musca Domestica*, was described by Carl von Linne in 1758. It comes in the order *Diptera* (or two-winged flies) and belongs to the family *Muscidae*. The tranformations are complete, there being four stages—the eggs, the leaves, the puparium (containing the chrysalis) and the imago or perfect insect. The egg is white, elongate, cylindrical, a little smaller and more pointed at the anterior end those the posterior. Its length is .04--.05 of an inch and about .01 inch in diameter. In shape it is more or less like a slender grain of wheat and has a grove or on the side. The eggs are usually deposited in masses by the female in the crevices of warm and moist horse-manure Heat and moisture

are required for the normal development, and they hatch in about twenty-four hours after oviposition. The freshly-hatched larvae or maggots are .07 inch in length, tapering or pointed at the head end and blunt at the other. When fully grown they are from .25 to .40 inch in length. They moult or change their skins three times, and the entire life of the larvæ is from five to seven days. After the third molt it changes to an inactive or resting stage, the pupa or puparium. This is a small, elongate brown, segmented, object, rounded at the ends and contains the chrysalis. This latter stage lasts from five to seven days, when the imago appears. Thus, the whole life cycle is about fifteen days.

The body of Musca domestica is black; the head has a longitudinal reddish, oval, smooth area on the vertex, with the orbits and adjacent region golden or silvery in some lights; the hairs are black and the antennæ and plume black. The thorax is black, tinged with golden rays on the sides, with three dorsal gray longitudinal bands, the middle one most distinct, the two lateral ones partially interrupted in the middle and continued onto the scutellum; there is a broad lateral golden gray band interrupted by the sutures. The base of the first abdominal segment has a yellowish band interrupted in the middle. On the middle of the end of the two segments is a triangular mesial golden spot, with an irregular band on each side, and farther down the sides golden; terminal segment, golden. Base of wings, scales and halteres, yellowish white. Legs black. The male differs from the female in the front between the eyes, being about one-third as wide as in the latter, while she is rather the smaller. Length, .22 to .32 inch.

The tongue is comparatively short, fleshy and bilobed and blunt, incapable of biting or piercing the human skin, and is adapted only for lapping up liquids. Allied species which bite may be confused with the house-fly.

The legs are very hairy and the fly, in walking on rough surfaces, uses the tarsal claws, and, on smooth surfaces, a fleshy organ called the pulvillus, which secretes a fluid that enables the fly to hold on to glass or like surface.

This insect will oviposit in horse-manure, decayed vegetables, decayed meats, cow-dung, fowls' dung and human excrement. The vast majority of them are, however, bred in horse excrement, Further knowledge in regard to the food of the larva is desirable. It would be useful to know about what proportion breed in garbage and in decayed meats, as this is important from a medical standpoint when preventive measures are considered.

The role of this common pest in the transmission of infectious agents has come to be recognized to the extent that both scientific and lay papers are laying a great deal of stress on the importance of dealing with methods of prevention. Dr. Henry Skinner, president of the Entomological Society of America, recently published in the New Orleans Medical and Surgical Journal an article on this subject, from which article we quote freely. The knowledge of bacteriology, in conjunction with a knowledge of the habits of the house-fly, its settling on all kinds of food, in addition to its habit of alighting on all sorts of effete germ-laden material, show conclusively that it is a very dangerous insect, so far as the health of mankind is concerned.

The keynote to the situation is along the line of prevention. Horse-manure bears about the same relation to the house-fly that stagnant water does to the mosquito. If this insect is prevented from ovipositing in manure, the fly as a pest would be largely a thing of the past. Various substances have been mixed with manure to destroy the fly larvæ, such as kerosene, chloride of lime, "residual-oil," lime and phosphates. These have been used with more or less success. Stables should have smooth and hard floors and kept clean, so that manure cannot accumulate. It should either be used at frequent intervals or stored in properly constructed bins or screened apartments. A good method is to ram it tightly in barrels that can be tightly covered. The most economical way of caring for very large quantities has not been determined. In towns and villages it would probably pay to have it collected at stated intervals, as is the case with garbage and ashes. The automobile may become a factor in ths destruction of house-flies, as in the near future the horse may have only a limited use. The problem is a very simple one, and as soon as preventive measures are inaugurated more extensively the effective and economical measures will be discovered.

THE NERVE THEORY OF ANGINA PECTORIS.

Multiple theories have been advanced to account for the symptom complex to which the term angina pectoris has been applied. The familiar *arterial theory* by which many authorities have sought to explain the manifestations does not cover the ground, for the very good reason that in many fatal cases autopsy reveals absolutely no anatomical lesions of the coronary vessels. The nerve theory advanced by von Neusser seems to fulfill the requirements and to explain

logically what hitherto has been a puzzle to clinicians. This theory assumes that inflammatory processes of the cardiac plexus are the cause of the affection, and this, in many cases, has been supported by the fact that lesions were found in the nerves of the cardiac plexus. If we consider that both vasoconstricting and vasodilating fibres of the coronary area terminate in the cardiac plexus and that these fibres connect with the spinal cord through the intermediary of the sympathetic ganglia and the rami communicantes; if we keep in mind that the excitations, which start from the centers for the vascular musculature, proceed from the gray substance to the anterior roots and from there through the rami communicantes to the sympathetic, the possibility suggests itself that the sensory fibres carry the sensation of pain in a centripetal direction, whereas the excitation of the centrifugal fibres is manifested as a vascular spasm in the cardiac vessels. This would complete a circle, in which not only primary excitation, but also reflex processes may be manifested in the course of the rami communicantes through the connection of the spinal cord with the sympathetic. This system also includes the pneumogastric nerve. The investigations of Maass have shown that vasoconstrictor fibres for the coronary artery terminate in the pneumogastric nerve, and since it is known that the rami communicantes effect the connection of the sympatheticus with the cervico-brachial plexus, a typical stenocardiac attack would be explained by any irritation of that system. In order to bring about a stenocardiac attack it would therefore be a matter of indifference whether the causative irritation starts in the end apparatus—that is the sensitive organs of the coronary arteries—in the transit station—that is the cardiac nerves —in the rami communicantes, or finally in the central apparatus—that is the spinal cord. The irritation of the sensitive connections would therefore produce pain, and that of the centrifugal connections (vasomotor) ischæmia of the myocardium. According to which of these components prevails, the polymorphic character of the stenocardiac paroxysms and the phenomena of radiation would be susceptible of interpretation. The anguish could be explained as being due to the centripetal connections and to the vagus, owing to an irritation of the oblongata. Let us keep the complete circle before our eyes; the spinal center of innervation, the dorsal nerves, the rami communicantes, the cardiac nerves, the aortic plexus and the coronary plexus with the sensitive terminal organs in their vascular walls. We shall be able to trace to one common basis all the types of stenocardia, much though they may differ in their anatomical foundation. Any and every irritation within that circle may cause alarm in the heart. In this way spinal affections (tabes), injuries to the dorsal nerves and the rami communicantes, affections of the nervus cardiacus magnus, neuritic affections of the cardiac and coronary plexus, and finally embolism and thrombosis of the coronary arteries, may produce the symptom complex of angina pectoris. The result will be the same in all cases; in the center pain and anguish, in the periphery vascular spasm with ischæmia of the myocardium. A healthy heart will overcome such an attack, even though it be serious, but if the heart muscle is weak and reduced in efficiency, whether from deficient nutrition or fatty degeneration, myocarditis or adhesions to the pericardium, then even a rudimentary vascular spasm in the heart muscle may lead to a catastrophe, just as a fatty degenerated heart may suddenly cease to work without the presence of an acute ischæmia.

BLOOD PRESSURE AND LIFE INSURANCE.

The practice of ascertaining the blood pressure has come to be recognized as of prime importance. Its significance in the making up of prognoses has within the past few years been impressed very forcibly upon all genuinely scientific clinicians. Its importance in this respect should be realized especially in considering the acceptance of applicants for life insurance. Dr. Ralph Grace, in an article which appeared recently in the New York Medical Journal, emphasized this idea in forcible terms. To estimate correctly the pressure of the blood in the vessels the most important evidence is attained by the use of the sphygmomanometer. Of this instrument there are many reliable makes, among which might be mentioned the Janeway, Riva-Rocci, &c. As is well known, blood pressure is estimated by the force necessary to compress the artery and obliterate the pulse wave beyond the point of compression. This force is measured in millimetres of mercury.

In arteriosclerosis we have a condition in the vessel wall which is best described as diffuse permanent thickening, or a hypertrophy of the muscular elements of the artery. There may be a thickening of the external coat or of the media, and should be distinguished from atheroma which is a focal affection of the arterial wall affecting separate limited areas, probably of micro-organic origin and usually a disease of the aged. In simple arteriosclerosis the blood pressure is not greatly raised as the increased resistance of the thickened vessel wall is

not so great, but that the additional pressure of comparatively few millimetres of mercury is sufficient to obliterate the pulse wave, and simple arteriosclerosis need not materially shorten life and the fear of cerebral hæmorrhage later in life may be groundless, but in arteriosclerosis with a coexistent hypertonus, the real cause of our high readings, we have a condition of grave importance in the life expectancy of the applicant. The diagnostic value of the sphygmomanometer then is not so great in uncomplicated arteriosclerosis, and we must depend upon our tactile sense in outlining the thickened artery, which may be quite difficult as the elasticity of the artery is not greatly destroyed and in the absence of hypertonus do not become rigid.

The high readings that are obtained in a hypertonic contracted vessel that may or may not be sclerosed is due to the *thickening of the vessel wall and the narrowing of its lumen*. This hypertonia is brought about in two ways, through the influence of the nervous system and by substances circulating in the blood. The effect of the emotions upon the circulatory system through the vasomotor centre in the medulla is well known, and the effect of active business life in modern times with the necessity of close application and the constant irritation through the nervous system is a great and important factor producing this hypertonus and increasing the danger of cerebral hemorrhage even in the comparatively young.

It is well known that the substances in the blood stream act directly upon the coats of the vessel without the medium of the nervous system causing contraction of the muscular coat. The source of these substances that even in small quantities cause arterial contraction and raising of the blood pressure is through the alimentary tract, particularly intestinal. As a result of these disorders of alimentation, toxic substances are developed and absorbed into the blood which act directly on the vessel wall, causing this dangerous hypertonicity which should be an element of concern to the examiner.

This hypertonicity that exists either in the sclerosed vessel or the sclerosed atheromatous vessel or in the healthy vessel and gives us the high readings, can be relieved by proper hygiene, diet, etc., and we may remove this so-called high blood pressure and find an applicant to be a risk of the first class rather than one to be refused on account of dangerous disease. The very high readings that are obtained in cases of interstitial nephritis are caused by the pathological changes in the arteries that are invariably met with in that disease, and cannot be materially affected by treatment; but high readings do not necessarily mean either arterial or kidney disease; we must recognize this hypertonic contraction of the vessels as a factor in high sphygmomanometer readings and depend greatly upon the microscopical findings of the urinary analysis for our diagnosis of kidney affections.

THE CAUSATION OF SEX.

Humanity has, since the beginning of time, found an apparently insolvable problem in the causation of sex, and the number of theories that have been advanced to account for it have reached infinity. None, however, have yet been able successfully to account for all phases of the problem. Recently Dr. E. R. Dawson, of Great Britian, has advanced a theory which he supports with profuse clinical evidence and facts, and which, to say the least, is fascinating because of its very simplicity. The *Indian Medical Gazette* succinctly outlines his theory in the June issue. The fundamental idea is that the male parent has nothing to do with the production of the sex of the fœtus. This is determined by the ovary producing the particular ovum which is fertilized, the male element only being necessary to start the process of development. According to Dr. Dawson a male fœtus is due to the fertilization of an ovum that came from the right ovary, and a female fœtus is due to the fertilization of an ovum from the left ovary. Certainly not a flattering idea to the vanity of the male. It seems fruitless to inquire why the right ovary should have been chosen for the production of boys and left for girls, the only explanation given being that perhaps the weaker sex should be derived from the weaker or left side of the body. It is fairly well admitted that only one ovum is produced at a time, and a good deal of evidence is brought forward by Dr. Dawson to show that the ova are supplied alternately, first by one ovary and then by the other. The strongest evidence on this point has been obtained from *post-mortem* records where death has taken place after a few or definite number of menstrual periods had occurred; it has been found in such cases that the cicatricial pits or scars, the remains of the *corpora lutea*, are equal in the *two* ovaries together to the number of periods passed. This holds good also for animals in which single pregnancy is customary, as has been shown by Heape in monkeys. The contention that the male parent does not influence the sex of the coming child is evidenced by such cases as those in which a woman has one-sexed children by different men; or those in which the father produced both-sexed children with different wives, but only one sex with each wife—

the father did not influence the sex; the women were "unilaterally" sterile. This has also been noted in animals: it is not uncommon to meet with females whose offspring is almost invariably of the same sex, although it has resulted from intercourse with several different males; on the other hand, males are never met with that exhibit any such uniformity in the sex of their offspring with different females. In order to prove the theory that the male sex is due to the fertilization of ova derived from the right ovary it is stated that in male pregnancy the corpus luteum is found in the right ovary. Dr. Dawson cites cases to prove this statement, and he also brings forward in evidence cases of pregnancy after operations on the ovaries. It is maintained that, while unilateral ovariotomy does not prevent a woman having children, those children will all be of the same sex, *provided all ovarian tissue be removed from one side*. This is a point upon which gynecologists should be able to furnish abundance of reliable data.

Granting the truth of the theory it is not only perfectly possible to foretell the sex of the unborn child, but also to insure the production of sex at will, i.e., in all except the first pregnancy; and the method would apply only in normal cases (excluding abortions, miscarriages, &c.). Take the last child's birthday, count back forty weeks to find the ovulation month, or month in which the ovum was fertilized which yielded the child. The sex of this child being known we then proceed alternately from the ovulation month until we come to the tenth ovulation period prior to the expected month of birth of the coming child —allowing an extra or thirteenth ovulation between each December and January of the year following. By this means it is possible to determine the sex of the ovulation which has just been fertilized and with which the patient is now pregnant. Because of the thirteen ovulations per annum it follows that children born in the same month in alternate years will be of the same sex, if the pregnancies were normal; and of opposite sexes if born in the same month of consecutive years.

From the foregoing statements it is abundantly evident that the production of sex at will must consist in avoiding any attempt at fertilization in the months during which an ovum is produced of the sex which is not desired.

We do not wish to be understood as having swallowed these ideas whole, simply because they seem plausible and are certainly most intensely fascinating. But because of the abundant opportunities which offer for proving or disproving such a theory we mention it with the hope that our readers will become interested in the matter.

CATAWBA SANATORIUM.

The new Catawba Sanatorium, located at the old Roanoke Red Sulphur Springs, in Roanoke county, Va., was formally opened by the Virginia State Board of Health on July 15th. This institution established by the State of Virginia for the treatment of tuberculosis will, at the beginning, be in charge of Dr. Truman A. Parker, of Richmond, who has had a large experience in the treatment of the disease and who has consented to remain for a month to see that arrangements are complete for carrying on the work. A permanent superintendent will be chosen as soon as it is possible to procure the right man.

The sanatorium was authorized by an appropriation of the last Legislature, and is intended to give the latest and most improved treatment of consumption. Although there were more than 100 applicants for admission to the sanatorium, only thirty patients could be received at first. This number will be increased from time to time, as the facilities are enlarged.

HIGHLANDS, N. C.

In our advertising pages of this issue is found the advertisement of an institution which is deserving of the notice of physicians who desire to find a place to send their tuberculous patients. Dr. Lapham, the physician in charge, needs no introduction to the profession of this section. Highlands is the highest village east of the Rocky Mountains, having an elevation of 3850 feet. No finer climate is to be found anywhere. On account of the elevation it is cool in summer, 86° F. being the highest temperature recorded. The air is delicious and bracing as if cooled by snow-capped peaks. The autumn is long, lasting late into November; the winters, because of the Southern situation, being only six miles from the Georgia line, are mild and sunny.

The soil is porous, there is no clay strata to prevent drainage. The highly ozonized air is remarkably free from soil emanations, fogs and dust, and there is no such thing as malaria. Surrounding the village are giant mountains, covered with endless forests. No grander and more beautiful scenery anywhere.

Tuberculosis is unknown, no case ever originated in the district. The village is composed chiefly of people who came on account of lung affections and regained their health. The Sanatorium is conducted along the lines approved by the highest authorities on tuberculosis. The tents have glass fronts, high shingled roofs, wooden walls, and broad porches in front. Awn-

ings provide ample shade and protection from direct sunlight. Open fire-places make them comfortable and attractive. The institution has its own dairy, laundry and ice plant. Ten acres of beautiful pasture furnishes grass for the cows. Food of the essential kind can be obtained in great abundance and cheaply.

DR. W. H. H. COBB.

No death that has occurred in the medical profession of North Carolina has caused a greater and more generally felt sadness than that of Dr. W. H. H. Cobb which occurred, July 21, at his home in Goldsboro, N. C. For some time past Dr. Cobb had not been well and his family and his friends and those close to him were not unaware of the seriousness of his condition. And so when the summons came no great surprise was felt. Angina pectoris with acute dilitation of the heart brought to a close the life of a man than whom no finer specimen ever lived in the old North State. Dr. Cobb had been active in the practice of his profession for almost half a century. Born at the old ancestral home, "Mount Auburn," near Spring Bank in Wayne county, April 3, 1841, he had just passed his sixty-eighth milestone, had almost lived out his allotted time. At the age of twenty he graduated from the University of Pennsylvania Medical School in 1861, and immediately thereafter volunteered in the Confederate Service. He was made assistant surgeon in the famous Second North Carolina Regiment, in which arduous position he served throughout the war. Many a maimed old soldier of that regiment and hundreds who have passed away in the intervening years were saved from death on the field, or in the hospitals by his skill as a surgeon and his attention as a physician.

Soon after the close of the war Dr. Cobb located in Goldsboro for the practice of his profession and there for 40 years he devoted himself with his characteristic heroism and philanthropy to his work among all classes in the community, the humblest as well as the highest receiving the same conscientious care and treatment, never pausing to enquire as to the financial ability of a patient to requite his services. And so through the rolling years he has builded himself a monument of unfathomable love in the hearts of Goldsboro people who today mourn his death as a personal sorrow in every home.

His professional brethren, members of the various Medical Societies to which he belonged, feel the bereavement as a personal grief. So long have they recognized in him one of the towering personalities of this State and section, a leader whose unerring judgment was to be trusted in all emergencies. A friend whose love made the recipient feel and know that no ulterior motive ever inspired his acts. A companionable, lovable, genial gentleman, his presence brought nothing but sunshine and good cheer. Charitable and broad minded he was able to see the good in men and things. Kindly disposed toward those younger in the profession his cheerful encouragement and ready helpfulness has led many a young doctor to cling to his high ideals and has inspired them to genuine accomplishment in their professional lives. His wide learning and experience led his fellows to recognize in him a counsellor of wise judgment and profound insight. In society matters Dr. Cobb had long been a prominent figure. Becoming a member of the State Medical Society in 1878, he was made vice-president in 1892 and President in 1894. From 1898 to 1900 he served as a member of the State Board of Medical Examiners. To Dr. Cobb's efforts, as much as to those of any other man, is due the organization and successful career of the Tri-State (Virginia and the Carolinas) Medical Association, of which he has also been president. For years he was State Medical Examiner for the Royal Arcanum and was grand dictator of the Knights of Honor.

RABIES.

No act the Legislature of North Carolina has ever passed carries with it a greater beneficence than that which made possible the establishment of a laboratory for the application of the Pasteur method of treating those bitten by supposedly rabid animals. The number of cases that have been treated demonstrate positively the great value of the department. At this season of the year the popular mind, naturally it seems, becomes imbued with the dread of mad-dogs. Perhaps it is because of the prevalent superstition of the influence of the dog star. Rabies and hydrophobia are two different terms meaning the same disease, the former meaning to rage or become mad. This term applies more especially to the disease as it exists in the maniacal form in the lower animals, while hydrophobia comes from the Greek, meaning dread of water. As this dread of water is occasionally found in the human subject, the term is properly used in such a case. The lower animals will repeatedly attempt to drink water, even though the act brings on a spasmodic contraction of the deglutitory muscles. The higher excitatory centres in these lower animals are stimulated to a greater degree, and at the same time their receptiveness to external impressions is deadened, conse-

quently they repeatedly attempt to drink, even though it produces much pain. Cummins, of the University of Michigan, discusses this subject interestingly in the Physician and Surgeon. Hydrophobia is an acute infectious disease communicated to man by the bite of an animal suffering from rabies. It is due to a definite specific virus which is transmitted through the saliva by the bite of a rabid animal. Its natural habitat is in the nervous system, and it does not retain its virulence when introduced into any other system of organs. It is essentially a nervous disease, and transmitted by the saliva of rabid animals. When inoculated into a wound this virus must come in contact with a broken nerve trunk in order to survive and reproduce itself. If by accident it attacks the end of a broken nerve trunk it slowly and gradually extends to the higher nerve centers and eventually produces the disease.

The relation of water to the disease is very much overrated. A dog never develops rabies because of the lack of water, or because he is confined. The animal may be overheated during the hot summer months, and he may not have sufficient water to quench his thirst, but these conditions alone cannot cause the disease. As far as we know, there has never been a case of spontaneous rabies. Invariably, whether the disease exists in man or animal, the history will point to a previous infection by a diseased animal. The transmission thus, from animal to animal, is necessary for the maintenance of the disease. The virus very rapidly dies outside of the body; it is of very low resistance to heat and dessication, and laboratory experiments conclusively prove that it cannot exist in nature.

Rabies is not a hot weather disease, as was ordinarily believed and maintained up to a few years ago. The number of cases during the winter months of the last few years has disproved this belief and the records of the Institute show an increase of about thirty per cent. in the number of cases over the summer months. However, these conditions are exceptional and due to the occurrence of a real epidemic. Ordinarily we meet only sporadic cases, but when the conditions are favorable, veritable epidemics have broken out and it is this matter which requires the careful attention of those who are concerned in the protection and preservation of public health.

It is known that infection depends largely on the part of the body and character of the tissue into which the virus is inoculated. The disease always develops when injections are made into the brain, into the eye, or into the nerve trunk. Intravenous injections of the active virulent virus hardly ever produces the disease. Subcutaneous injections with a needle of very small diameter are very seldom successful, while application of the virus to divided nerve filaments is generally efficacious in producing the disease.

The Pastuer method of treatment is a process of immunization which must be completed before the development of the disease. After symptoms appear it is of no value. This immunization can be obtained in those who have not been infected the same as in those who have been bitten In dealing with the ordinary infectious diseases one is not always aware of the fact that he is infected. But this is not so in hydrophobia. The individual always realizes when and how severely he is bitten by a rabid dog. And were it not for the significant fact that there is a period of so-called latent development of the view, it would be impossible to carry out the Pasteur treatment. The patient takes advantage of this fortunate provision of nature and is immunized before the development of the disease. This same prophylactic principle is applicable in dealing with smallpox, tetanus, or bubonic plague. However, in these infectious and contagious diseases one is not always knowingly exposed and infected.

EDITORIAL NEWS ITEMS.

Peachtree Heights Sanatorium.

In Atlanta, Ga., on July 1, '09, the Peachtree Heights Sanatorium for the treatment of tuberculosis was opened to receive patients. This institution is located on the highest point on Peachtree Road, eight miles from Atlanta. A beautiful tract of thirty-six acres, a considerable portion of which is in woodland—chiefly pine forest—and situated on the main line of the Southern Railroad, has been purchased by those interested.

A handsome administration building has been erected. In it are the administrative and physicians' offices, recreation room, dining room and culinary departments, besides private rooms and baths.

For the accommodation of patients, the most approved types of lean-tos and individual shacks have been installed, so that the full benefit of the fresh air treatment may be had, combined with a maximum of protection from inclement weather. The needs of the ladies have been especially borne in mind in the construction of these buildings. The buildings are all to be heated and lighted by the most improved methods.

There is an abundant supply of pure water, the source of which cannot be contaminated. A complete sewage system with

septic tanks is being installed, insuring scientific disposal of all waste material.

The treatment is based on the principles recognized in all the leading sanatoria of the world. These principles, briefly stated, are fresh air and sunshine, rest, good and abundant food, an occasional dose of medicine for the relief of troublesome symptoms, and the careful application of tuberculin and allied products.

Above all else, *supervision* is the most important function of the sanatorium, and patients will be taught the difficult art of applying comparatively simple principles to their respective cases. For this reason we believe the sanatorium offers the *best* opportunity for recovery in every case. And a very large percentage of early cases may be cured.

Special efforts will be made to render the Sanatorium homelike and attractive. Amusements will be provided, and the latest current literature will be placed at the disposal of the patients.

PERSONNEL

Dr. W. S. Kendrick, of Atlanta, is Medical Director of the Sanatorium.

Dr. Lewis M. Gaines, of Atlanta, is Associate Medical Director.

Dr. Edward G. Jones, of Atlanta, is Consulting Surgeon.

Dr. M. G. Campbell, of Atlanta, is Consulting Physician.

There will be a trained nurse in charge and sufficient number of attendants to guarantee the best service.

For rates and full information address Dr. Lewis M. Gaines, Secretary, 822 Candler Building, Atlanta, Ga.

Dr. Clemenger in London.

Dr. F. J. Clemenger, one of Asheville's most progressive physicians, is now in London, where for the pasi year he has been an assistant to Sir Almoth Wright, of Opsonic Theory fame. During the past eight months he has served as one of the salaried assistants on the staff of the Inoculation Department at St. Mary's Hospital where Wright's famous work has been done, and where it is said on clinic days one hundred and fifty cases are treated. To show in how great esteem this work is held, it was necessary to provide a new wing to the hospital. This wing was opened up on July 1st for the sole use of the inoculation department. It contains well equipped laboratories and accommodations for one hundred or more beds. The cost of the wing was something over two hundred thousand dollars. We congratulate Dr. Clemenger on this recognition of his abilities.

The Alamance County Medical Association held a very interesting meeting in Burlington, N. C., on July 12th. Besides the regular members of the society, Dr. Hubert A. Royster, of Raleigh, N. C., and Dr. J. W. Long, of Greensboro, N. C., were present. Dr. Royster and Dr. Long both read interesting papers, which were thoroughly discussed by the members of the society.

The Trustees of Wake Forest College, N. C., have elected Dr. J. D. Powers to succeed Dr. W. S. Rankin, who resigned his position as dean of the medical department of that institution to become Secretary of the State Board of Health of North Carolina.

Dr. Powers is a Wake Forest man, and has had two years' work at Bellevue Hospital, New York.

The Macon Hospital in Macon, Ga., is being remodeled, which will add greatly to both the appearance and convenience of the institution. A considerable sum of money will be spent in the changes that are to be made for the benefit of the patients.

The Georgia State Sanitarium for the Treatment of Tuberculosis is to be located at Alto, Ga., on the Southern Railroad, near Mt. Airy. This site was selected by a sub-committee composed of Captain W. G. Aoul, of Atlanta, Judge T. D. Tinsley, of Macon, and Dr. H. R. Slack, of LaGrange. The State has appropriated $25,000 for the building of this institution.

The Alabama State Medical Examiners met in Montgomery July 13th. One hundred and fifty young medicos applied for license, a number which surpasses all former records for Alabama. There were nine negroes.

The Alabama State Board of Medical Examiners is composed as follows: Dr. W. H. Sanders, Chairman, Dr. T. L. Robertson, of Birmingham, Dr. D. F. Tally, of Birmingham, Dr. S. W. Welsh, of Talladega, Dr. M. B. Cameron, of Eutaw, Dr. S. G. Gay, of Selma, Dr. V. P. Gaines, of Mobile Dr. I. L. Watkins, of Montgomery, Dr. Glenn Andrews, of Montgomery, Dr. L. W. Johnston, of Tuskegee.

Drs. George Ben Johnston and Murat Willis announce the opening of their private hospital, Johnston-Willis Sanatorium, Sixth and Franklin Streets, Richmond, Va.

Drs. Farrar and Brown announce that Dr. M. A. Farrar has purchased the interest of Dr. E. F. Hayden in the Hayden and Brown Sanitarium. The institution will be known as the Farrar and Brown Sanitarium, and will be conducted in a strictly ethical manner, under the personal management of Drs. Farrar and Brown, for the

treatment of alcohol and drug addictions of every character, also diseases of the mind and nervous system.

The Hospital is located in Nashville, Tennessee.

Dr. Reagan's Letter.

We reproduce Dr. Reagan's personal letter. This is the first time that the Journal has ever deviated from its policy, which was established eighteen years ago, in regard to publishing letters written to the editor concerning the Journal, or any personal friend. Dr. Reagan, I have no idea, wants this letter reproduced in the Journal; at the same time I want to publish it. It reads as follows:

"My dear Dr. Register:—

I simply write to say that I enjoyed all you said about Dr. Burroughs in your last issue of the Journal. He has done more for the young doctors than any man in Asheville, if not in North Carolina.

With the best wishes for yourself, wife and the Journal, I am as ever, the oldest physician west of the Blue Ridge, and formed the first Medical Society ever formed this side of the Blue Ridge. We only had seven physicians to begin with, now we have over sixty.

Yours very truly,

J. A. REAGAN,

Weaverville, N. C.

Rex Hospital.

Work on the new Rex Hospital building, in Raleigh, N. C., has progressed very rapidly during the past few weeks. The workmen are now engaged in finishing the inside of the building. The plumbing, which is handsome and costly, is being installed, while the large quantity of tiling is already laid. When completed the hospital will be second to none in the whole South. In design, workmanship, material and equipment it will be thoroughly up to date.

It will be ready for occupancy October 1st, though the contractor expects to be through work on or about September 15th. Quite an event will be made of the dedication.

The new superintendent who succeeds Miss Elinor Phillipps is Miss Helen Orchard, of Richmond, Va. She is a Southern woman and comes highly recommended.

Medical Department of the University of North Carolina.

The eighth session of the Medical Department of the University of North Carolina at Raleigh will begin on September 9, 1909, at the same time as all the other University Departments. Prospects for attendance are good.

Some changes in the faculty have been made. Dr. John Sasser McKee has been elected demonstrator of obstetrics, and Mr. James Madison Harris, of Kinston, assistant demonstrator of clinical pathology.

Dr. A. W. Goodwin has resigned his position as professor of diseases of the skin and genito-urinary system, and the resignation has been accepted. Dr. C. O. Abernethy was appointed to fill the position for the coming session.

Pellagra in Nashville.

There are fourteen cases of pellagra among the children of the Baptist Orphanage of Nashville, Tenn. The State Board of Health has appealed to the Federal Government for an expert to aid in stamping out the epidemic.

Health Conditions in North Carolina.

The Bulletin of the North Carolina Board of Health for May, 1909, showed that reports were received from 81 counties. The total number of deaths reported was 356; 175 white and 182 colored. The annual death rate in a thousand population was 13.3 for the white population, 23.7 for the colored, and 16.9 for the total white and colored. Of the total number of deaths 22 were due to pneumonia, 50 to tuberculosis, 27 to heart diseases, 58 to diarrhœal diseases. The total infant mortality was 102; 47 white and 55 colored. There were 53 stillbirths.

Mortality Statistics of New Orleans.

The official report of the Board of Health of the city of New Orleans shows that during the month of June, 1909, the total number of deaths from all causes was 536; 327 white and 209 colored. The death rate in a thousand of population for the month was 14.81 for the white, 26.88 for the colored, and 17.76 for the total white and colored population. The total infant mortality was 146, 91 white and 55 colored; 119 under one year of age, 74 white and 45 colored; 19 between one and two years of age, 11 white and 8 colored; and 8 between two and five years of age, 6 white and 2 colored.

The Fourth International Congress of the Medical Press will meet this year at Budapest on August 27 and 28, on the eve of the Sixteenth International Congress of Medicine, and under the presidency of Professor Posner of Berlin. The sittings will be held in the Palace of the Academy of Sciences (Akademia utcza 2. Budapest V.), where the assembly hall has been placed at the disposal of the International Congress of Medicine. For this congress, to which all members of the medical press will be admitted, no entrance fee or subscription will

be charged. The only condition of admission is that of being also enrolled as a full member of the International Congress of Medicine. Demands for admission should be sent before August 1 to the general secretary of the International Association of the Medical Press, Dr. Raoul Blondel, 103, Boulevard Haussmann, Paris.

Catawba Sanatorium.

The new sanatorium of the State Department or Health of Virginia for the care of tuberculosis was opened on July 15. The institution is situated at the old Roanoke Red Sulphur Springs, in Roanoke County. Dr. Truman A. Parker of Richmond is in temporary charge, and will remain at Catawba until a permanent superintendent can be chosen.

Faculty of the Medical Department of the University of Louisville Reorganized.

The board of directors of the University of Louisville recently dismissed the entire faculty of the medical department of the institution, as it was found necessary to reduce the number of professors on the staff. When the five medical colleges of Louisville were consolidated some time last year, a large staff was the result, and the necessity for a smaller one has been demonstrated. The following thirty-five members of the old faculty have been reappointed as the new major faculty: Dr. J. M. Bodine, Dr. Thos. C. Evans, Dr. C. W. Kelly, Dr. William H. Wathen, Dr. J. B. Marvin, Dr. L. S. McMurtry, Dr. H. H. Grant, Dr. H. B. Ritter, Dr. I. N. Bloom, Dr. J. M. Ray, Dr. W. E. Grant, Dr. Louis Frank, Dr. Garland Sherrill, Dr. William A. Jenkins, Dr. John R. Wathen, Dr. George B. Jenkins, Dr. W. O. Roberts, Dr. P. F. Barbour, Dr. A. O. Pfingst, Dr. George A. Hendon, Dr. Hugh N. Leavell, Dr. Edward Speidell, Dr. E. R. Palmer, Dr. Bernard Asman, Dr. Charles W. Hibbitt, Dr. Irvin Abell, Dr. V. E. Simpson, Dr. Granville Hanes, Dr. B. F. Zimmerman, Dr. Carl Weidner: Dr. Henry E. Tuley, Dr. John G. Cecil, Dr. William C. Dugan, Dr. S. G. Dabney, Dr. William Cheatham. Dr. J. M. Bodine was elected president, and Dr. T. C. Evans dean.

New Staff of the Memorial Hospital, Richmond, Virginia.

At a recent meeting of the board of directors of the hospital, Dr. Lewis C. Bosher was appointed chief, and the following names were added to the visiting staff: Seniors—Dr. Edward P. McGavcock, dermatology; Dr. St. George Grinnan, pediatrics, and Dr. R. H. Wright, ophthalmology. Juniors—Dr. C. W. Massie, Dr. Hunter R. Scott, Dr. H. B. Sanford, and Dr. T. D. Jones, obstetrics; Dr. McCaw Tompkins and Dr. H. Norton Massey, abdominal surgery; Dr. Sidney Baker and Dr. B. Giles Cook, gynæcology; Dr. E. H. Terrell, general surgery, and Dr. B. M. Rosebro, Dr. E. W. Gee, and Dr. B. L. Taliaferro, diseases of children.

Minutes of the Fifty-Sixth Annual Meeting of the Medical Society of the State of North Carolina, Held at Asheville, N. C., in the Ball-Room of the Battery Park Hotel, June 15-17, 1909.

The fifty six annual meeting of the Medical Society of the State of North Carolina was a most enjoyable affair, and was well attended by both members and distinguished guests.

The convention was called to order by Dr. Brown, Chairman of the Committee of Arrangements.

Rev. R. F. Campbell, D. D., pastor of the First Presbyterian Church, delivered the Divine invocation.

Dr. Brown then introduced Judge T. A. Jones, a prominent member of the Asheville Bar, who delivered a very enjoyable address of welcome, which was responded to, on behalf of the Society, by Dr. C. A. Julian, of Thomasville.

The President then read a very able address, "The Relation of the Medical Profession to the People Along the Lines of Hygiene and Preventive Medicine," at the conclusion of which Dr. Parrott, of Kinston, moved that the address be referred to a committee to report on the same, and Doctors Albert Anderson, J. T. J. Battle, A. A. Kent and James M. Parrott were appointed to serve on that committee.

The program was then taken up, and Dr. E. J. Wood, of Wilmington, Chairman of the Section, "Practice of Medicine," read a paper entitled "A Further Report on the Pellagra Problem," which paper was discussed by Doctors Rankin, A. J. Crowell and M. E. Roberson.

Dr. Mary E. Lapham, of Highlands, delivered an address on "Modern Methods in the Treatment of Tuberculosis in Switzerland," at the conclusion of which the Society took a recess until half past three.

During the morning session Dr. Battle, of Asheville, invited the members to visit Biltmore Hospital; a telegram, extending fraternal greetings, was read from the President of the State Pharmaceutical Society, and a reception, to be held at Dr. James A. Burrough's residence the same evening, was announced, and the members, together

with their wives, daughters and invited guests, were asked to attend.

TUESDAY AFTERNOON.

Convention called to order by the President.

Dr. McBrayer, of Asheville, introduced Dr. J. Garland Sherrill, of the University of Louisville, Ky., a North Carolinian by birth, who read a paper on "Surgical Diseases of the Kidney," which was discussed by Dr. Lloyd Russell.

Dr. Templeton, of Cary, then read a paper "The Legal vs. the Medical Profession," and was vociferously applauded. Dr. Cobb, of Goldsboro, moved that Dr. Templeton's paper be published in pamphlet form, and distributed throughout the State. Motion seconded by several and carried.

Report of Examining Board read by Dr. Ben. K. Hays, of Oxford. Upon motion of Dr. Anderson, the report received and adopted.

"Surgery in the Year 1700;" "Treatment of Club Foot," read by Dr. Wm. Moncure, of Raleigh.

Paper by Dr. Ellsworth Eliot, of New York, on "Some Clinical Features of Tumors of the Female Breast, with Special Reference to End Results." Discussed by Doctors Weaver, J. Garland Sherrill, J. M. Parrott, Whittington, and J. A. Ragan.

Paper by Dr. Dunbar Roy, Atlanta, Ga., "Rational Status in the Present Day Treatment of Nasal Diseases." Discussed by Doctors Whittington, Kirk, and Whisnant.

Address by Dr. Charles Waddell Stiles, of the Marine Hospital Service, on "Hook Worm Disease." Discussed by Doctors Julian, Wood, Bellemay, Philips, and Templeton.

Paper read by Dr. J. Vance McGougan, Chairman Section of Railway Surgery, entitled "Shock," discussion of which was deferred until the next morning.

WEDNESDAY MORNING, JUNE 16.

Society called to order by the President.

Discussion on Dr. McGougan's paper opened by Dr. Bahnson, of Winston. Dr. Philips asked that the privileges of the floor be accorded Doctors Lloyd and Eliot, of New York. Dr. McGougan's paper further discussed by Doctors McCoy and Cobb.

"Traumatic Neuroses," by Dr. Samuel Lloyd, of New York. Discussed by Doctors Parrot and McNider.

The President here stated that the election of two medical examiners for the nurses of North Carolina would be had, office to be held for two years.

Doctors McMullen, of Elizabeth City, and Julian, of Thomasville, were nominated; nomination seconded by several, and upon motion of Dr. Crowell, of Charlotte, these two nominees were elected by acclamation.

"Tertian Infection, Golgi Organism, Fatal with Gastro-Enteric Symptoms," by Dr. J. J. Philips, Chairman Section Pediatrics." Discussed by Doctors Parrott, Albert Anderson, Cyrus Thompson and Wood.

"Tuberculin in Diagnosis Applied to Children," Dr. Richard Urquhart, Johns Hopkins, Baltimore, Md. Discussed by Doctors Stiles and Kirk.

Society took a recess until 2:30 p. m.

CONJOINT MEETING BOARD OF HEALTH WITH THE NORTH CAROLINA MEDICAL ASSOCIATION.

The conjoint meeting was called to order at twelve o'clock Wednesday—immediately after the adjournment of the State Medical Society—by Dr. Thomas, Chairman, who told of the retirement to take place by Dr. Lewis, for fifteen years Secretary of the State Board of Health, and expressed his regret at Dr. Lewis' action.

Report of the Secretary read by Dr. Lewis.

Upon motion the Secretary's report was adopted.

A brief report of work done in the State Laboratory was read by the Secretary.

Doctors Albert Anderson, F. R. Harris, W. S. Rankin and C. W. Stiles made brief addresses, expressing regret at Dr. Lewis' retirement from office.

Dr. Shore was named as Dr. Lewis' successor in office, with Dr. W. S. Rankin, assistant.

Dr. Lewis then announced a meeting of the Board of Health in another room at a quarter to three, Wednesday afternoon, and adjourned the meeting.

WEDNESDAY AFTERNOON.

Convention called to order by the President.

At the opening of the afternoon session considerable discussion was had upon a portion of Section 7, Chapter 4, of the By-Laws adopted in 1903, at the Hot Springs meeting, finally ending in a motion of Dr. Templeton's that the matter be taken under consideration for the next year's work.

Paper by Dr. Rankin, Chairman Section on Pathology and Microscopy, "The Influence of Pathology on Materia Medica and Therapeuticsr" Discussed by Dr. Wood.

"Serum Therapy in Meningitis," by Dr. F. R. Harris, Henderson.

Dr. Applegate, Chief Surgeon of the Southern Railway, introduced by Dr. Way, and privileges of the floor extended him by rising vote.

"Hematuria," by Dr. A. J. Crowell,

Charlotte, N. C. Discussed by Doctors Ragan and King.

"A Plea for the State to Educate the Public in Infectious Diseases," by Dr. W. P. Holt, Chairman Section on Medical Jurisprudence and State Medicine. Discussed by Doctors Ragan and Stiles.

"The State's Duty in the Fight against Infectious and Contagious Diseases," by Dr. J. W. Halford, Chalybeate Springs.

The convention then adjourned until 8:30 p. m.

WEDNESDAY EVENING, JUNE 16.

Society called to order by the President.

Report of Chairman of Obituary Committee read by Dr. Julian.

Memorium of Dr. P. E. Hines, read by Dr. A. W. Knox.

A beautiful tribute to Dr. Hines was also paid by Dr. Templeton, of Cary.

Annual Oration "The Evolution of Medical Science, a Symposium of its Past and its Manifest Destiny," by Dr. Chas. W. Mosley, Greensboro.

Annual Essay, by Dr. W. L. Dunn.

THURSDAY MORNING, JUNE 17th.

Society called to order by the President at 9:30.

The Section of Obstetrics was taken up, and a paper read by the Chairman, Dr. A. Bascom Croom, "The Country Midwife."

This subject was animatedly discussed by Doctors Dickinson, Robinson, Payne, Cyrus Thompson, McKee Tucker, Sykes, Burroughs, Ashby, and Laughinghouse.

"The Treatment of Puerperal Eclampsia," by Dr. A. A. Kent, Lenoir. Discussed by Doctors Spencer, Laughinghouse, Ashby and Harris.

Dr. J. T. J. Battle here read report of the Committee appointed to draft resolutions in regard to Dr. Lewis' retirement from office.

Moved by Dr. Harris that the report of this Committee be received and filed and spread upon the minutes, and that a rising vote of thanks be had to express further the appreciation of the Society, of Dr. Lewis' usefulness that he has been to the profession of North Carolina during his term of office; which resolution was unanimously carried by rising vote.

"Importance of the Early Recognition of the Indications of Caesarean Section," by Dr. H. McKee Tucker. Discussed by Doctors Strong, Dees and Payne.

"Frigidity, From a Sociological and Gynecological View-Point," by Dr. C. M. Strong, of Charlotte. Discussed by Dr. Thompson.

"A Review of One Hundred Cases of Laparotomy," by Dr. W. P. Whittington, Asheville, N. C. Discussed by Doctor Robinson.

THURSDAY AFTERNOON, JUNE 17.

Convention called to order by the President.

Report from the Nominating Committee read by Dr. Stanton, as follows:

"The Nominating Committee met and organized by electing Dr. A. A. Kent, President, Dr. B. F. Long, Secretary, and the following gentlemen were nominated as officers of the Medical Society of North Carolina:

President, Dr. J. A. Burroughs, Asheville, N. C.

First Vice-President, Dr. E. J. Wood, Wilmington, N. C.

Second Vice-President, Dr. John Q. Myres, North Wilkesboro, N. C.

Third Vice-President, Dr. L. D. Wharton, Smithfield, N. C.

Secretary, Dr. D. A. Stanton, High Point.

Orator, Dr. Cyrus Thompson.

Essayist, Dr. R. V. Brawley, Salisbury.

Leader of Debate, Dr. D. A. Garrison, Gastonia, N. C.

Treasurer, Dr. H. D. Walker, Elizabeth City, N. C.

Delegate to the American Medical Association, Dr. T. E. Brown, Asheville, N. C.; alternate, Dr. J. B. McGoughan, Fayetteville, N. C.

Public Policy and Legislation, Dr. R. H. Lewis, Raleigh, N. C.; Dr. Albert Anderson, Raleigh, N. C.; Dr. Geo. L. Thomas, Wilmington, N. C.

Committee on Publication, Secretary ex-officio, Dr. H. A. Royster, Raleigh, N. C.; Dr. R. L. Gibbon, Charlotte, N. C.

Committee on Scientific Work, Secretary ex-officio, Dr. T. S. McMullin, Hertford, N. C.; Dr. Harlee Bellemay, Wilmington, N. C.

Committee on Finance, Dr. G. T. Sykes, Grissom, N. C.; Dr. T. Fearing, Elizabeth City, N. C.; Dr. Wm. M. Jones, High Point, N. C.

Committee on Obituary, Dr. C. A. Julian, Thomasville, N. C.; Dr. P. R. McFadden, Raudleman, N. C.; Dr. J. W. McGee, Jr., Raleigh, N. C.

Delegates to Mississippi Association, Dr. C. J. O'Laughinghouse, Greenville, N. C.; Dr. James S. Rhodes, Williamston, N. C.; Dr. J. W. Hopper, Wilmington, N. C.; Dr. C. W. Jordan, Asheville, N. C.; Dr. J. R. McCracken, Waynesville, N. C.; Dr. W. H. H. Cobb, Jr., Goldsboro, N. C.

Delegates to the Virginia Medical Association, Dr. M. Bolton, Rich Square, N. C.; Dr. Fletcher R. Harris, Henderson, N. C.; Dr. R. E. Lee, Goldsboro, N. C.; Dr. S. M. Mann, Moyock, N. C.; Dr. R. O. Dees, Greensboro, N. C.

Delegates to the South Carolina Medical Association, Dr. C. A. Peterson, Mitchell

County; Dr. W. H. Ward, Plymouth, N. C.; Dr. J. E. Ashcraft, Monroe, N. C.; Dr. J. D. Waldrop, Hendersonville, N. C.

Place of meeting, Wrightsville Beach, third Tuesday in June.

Chairman Committee of Arrangements, Dr, George Thomas.

Moved by Dr. Register that the report, as read, be adopted. Motion carried.

Treasurer's report read by the Secretary.

Moved by Dr. Harris that the Treasurer's report, as audited by Doctors Anderson and Bolton, be accepted. Motion carried.

The President, after hearing the above reports, stated that owing to the fact that there were so few members present,—the majority of them riding around Biltmore at the time— he thought it perhaps well to install the new President and adjourn, and Doctors Bolton and Register were appointed to escort him to the chair.

Upon the installation of Dr. Burroughs, Dr. Julian moved that the "Association extend thanks to the good people of Asheville, the Medical Society of Buncombe County, the Battery Park Hotel and the Press, for the kind notices and nice entertainment given it while in the city."

Motion seconded by several and unanimously carried.

Upon motion of Dr. Register the convention adjourned sine die.

The following papers were read by title:

"Myiasis," by Dr. J. L. Nicholson, Richland.

"The Experimental Study of the Action of Alcohol in the Production of Arterio-Sclerosis," by Dr. Wm. DeB. MacNider, Chapel Hill, N. C.

"Diet in Typhoid Fever," by Dr. Edw. C. Register, Charlotte.

"The Economic Importance of Preventive Medicine," by Dr. W. J. McAnnally, High Point.

"Impotence," by Dr. Baxter Haynes, Cliffside

"Tonsilitis, Its Treatment and Importance of Same," by Dr. S. P. Burt, Louisburg.

"Apoplexy," by Dr. E. F. Strickland, Bethania.

"The Detection of Feigned Blindness in One or Both Eyes," by Dr. H. H. Biggs, Asheville.

"Milk Sickness or Fall Poison," by Dr. J. M. Hodges, Banners Elk.

"Five Hundred Cases of Headache," by Dr. G. S. Tenant, Asheville.

"The Neglected Field of the Physician," by Dr. M. Eugene Street, Glendon.

"Selling Diplomas to Medical Men," by Dr. H. D. Stewart, Monroe.

"Clinical Notes on Sanitorium Work," by Dr. J. C. Walton, Richmond, Va.

"A Case of Osteomalacia," by Dr. J. Steven Brown, Hendersonville.

"Pneumonia," by Dr. Stuart Mann, Moyock.

"The Business Methods of the Physician," by Dr. E. G. Moore, Elm City.

"Report of Cases," by Dr. W. O. Spencer, Winston-Salem.

"Some Common Nervous Symptoms and their Significance," by Dr. J. P. Munroe, Charlotte.

"Bacteriuria," by Dr. J. Meigs Flippin, Winston.

"Empyema in Children—Personal Experience in Diagnosis and Treatment," by Dr. J. R. Paddison, Oak Ridge.

"Prophylaxis in Typhoid Fever," by Dr. W. P. Horton, North Wilkesboro.

"Typhoid Fever from the Experience of a Practitioner in the Mountains of North Carolina and Virginia," by Dr. S. E. Pennington, Sturgills.

"The Liver," by Dr. J. W. Wallace, Concord.

"Personal Experience in the Diagnosis and Treatment of a Number of Cases of Gastric Neuroses," by Dr. J. Allison Hodges, Richmond, Va.

"The Play Impulse in Public Health," by Dr. W. A. Lambeth, Charlottesville, Va.

"Adenoids," by Dr. J. G. Murphy, Wilmington.

"Morphinism, A Variety of Comments," by Dr. S. M. Crowell, Charlotte.

"The Increasing Frequency of the Use of Narcotic Drugs by Members of the Medical Profession and the Probable Cures for it," by Dr. C. W. Ashworth, Greensboro.

"After Care of Surgical Cases," by Dr. Henry Norris, Rutherfordton.

"An Antiseptic Leech," by Dr. W. D. Witherbee, Charlotte.

"The Surgical Treatment of Epilepsy," by Dr. Rigdon O. Dees, Greensboro.

"Dislocation of a Cervical Vertebra," by Dr. E. T. Dickinson, Wilson.

"Foreign Bodies Migrating the Human Body"—with Report of Case—by Dr. Brodie C. Nalle, Charlotte.

"Report of a Case of Double Compound Fracture of the Leg," by Dr. Jas. A. Turner, High Point.

"Perinephritis and Perinephritic Abscess," by Dr. R. H. Moorefield, Westfield.

"Framing the Gynecologist," by Dr. H. A. Royster, Raleigh.

"Ephriam McDowell," by Dr. Joseph Graham, Durham.

"The Urinometer in Obstetrical Practice," by Dr. J. S. Gibson, Gibson.

"The Management of Obstetrical Cases Complicated by Contracted Pelvis," by Dr, L. M. Allen, Baltimore, Md.

"Concerning Monsters," by Dr. R. H. Whitehead, Charlottesville, Va.

"Pregnancy Complicated by Malformation of Uterus and Vagina," by Dr. J. N. Taylor, Bynum.

"Dead Fœtus, Seven Months with Complete Placenta Previa," by Dr. J. M. McGhee, Reidsville.

"An Analysis of Eighty Cases of Labor," by Dr. K. P. B. Bonner, Morehead City.

"A Study of the Curd in Infant Stools," by Dr. Charles Roberson, Greensboro.

"Healthful Children," by Dr. J. Steven Brown, Hendersonville.

"Anaphylaxis," by Dr. Richard N. Duffy, New Bern.

"Pathology of Hæmoglobinuric Fever," by Dr. W. T. Parrott, Kinston.

"Arterio-Sclerosis of the Uterus," by Dr. Robt. B. Slocum, Wilmington.

"Some Recent Views Concerning Typhoid Fever," by Dr. L. B. Newell, Charlotte.

"The Present Status of our Knowledge of the Thyroid Bodies," by Dr. I. H. Manning, Chapel Hill.

"A Review of the Physiology of the Heart's Action," by Drs. Wm. S. Jordan and J. M. Lilly, Fayetteville.

"A Review of Some of the Recent Researches in the Physiology of the Alimentary Canal," by Dr. Robert H. Lafferty, Charlotte.

"Gastric Functions—Harmones," by Dr. C. N. Peeler, Charlotte.

"Progress in the Administration of Medicine," "A New Era of Scientific Therapeutics," by Dr. H. Bascom Weaver, Asheville.

"The Origin of the Prescription and the Financial Side of Prescribing," by Dr. Charles S. Grayson, High Point.

"Cathartics," by Dr. M. A. Royals, Yadkinville.

"Fracture of the Skull," by Dr. I. F. Hick, Dunn.

"The Dangers of the Present Tuberculin Era," by Dr. W. L. Dunn, Asheville.

"Pulmonary Tuberculosis, a few Practical Observations on, From the View-Point of a Practitioner in Western North Carolina," by Dr. J. Howell Way, Waynesville.

"Some Phases of the Tubercular Problem," by Dr. P. R. McFayden, Randleman.

"Fallacies Past and Present in the Treatment of Tuberculosis," by Dr. Wm. M. Jones, High Point.

"Hemorrhage from the Lungs in Pulmonary Tuberculosis," by Dr. W. R. Kirk, Hendersonville.

"The Need of Aggressive Action in the Crusade Against Tuberculosis," by Dr. C. A. Julian, Thomasville.

"Relation of the Life Insurance Company to the Agent," by Dr. Albert Anderson, Raleigh.

"Medical Examinations Against the Commercial Report," by Dr. J. T. J. Battle, Greensboro.

"Life Insurance and Mortality," by Dr. J. M. Parrott, Kinston.

The program of entertainment was as follows:

Reception at Mission Hospital, 4:30 to 6:00 p. m.

Reception at home of Dr. Burroughs, 9:00 to 11:00 p. m.

TUESDAY, JUNE 15th.

Cards for ladies at Battery Park Hotel, 10:00 a. m. to 12:00 m.

Barbecue at Overlook Park, and reception at Asheville-Biltmore Santarium, June 16th.

Musicale for ladies at the home of Dr. Carroll, 10:30 to 12:30. Drive over Biltmore estate in the afternoon, June 17th.

Privileges of all Clubs extended the members.

Marriages.

Dr. Phinzy Calhoun and Miss Mary Peel, both of Atlanta, Ga., were married at St. Mark's Methodist Episcopal church in that city on the evening of June 30th. The groom is a graduate of the Atlanta College of Physicians and Surgeons, Atlanta, Ga., class of 1904, and is one of the most prominent young physicians of Atlanta.

Dr. A. A. Cannady and Miss George Ruth Eliason, both of Roanoke, Va., were married on June 30th, at the home of the bride's parents, Captain and Mrs. G. P. Eliason.

Dr. Cannady graduated from the Medical Department of New York University in 1888, and since that time has been very successful in the practice of his profession. On July 3rd, Dr. and Mrs. Cannady sailed for Europe, where they will spend some time.

Dr. Chas. H. Grey and Miss Ellie Mae McAllister, both of Waynesboro, Miss., were married in the Baptist church in that city on June 7th.

Dr. Thos. Victor Bachelor of Bovinia, Miss., and Miss Maria Louise Young, of Vicksburg, Miss., were married at the bride's home on July 20th.

Dr. Fletcher L. Brown, of Whiteville, N. C., and Miss Maud Phifer, of Morganton, N. C., were married at the home of the bride's brother, Mr. I. A. Phifer, of Spartanburg, S. C., on July 17th.

The bride is a recent graduate of the

Presbyterian Hospital, Charlotte, N. C., and the groom is a recent graduate of the North Carolina Medical College.

Dr. and Mrs. Brown will make their home in Florida.

Dr. A. R. Fike, of Spartanburg, S. C., and Miss Rose Wingo, of Asheville, N. C., were married June the 30th, at the home of the bride's sister, Mrs. Bivings.

Deaths.

Dr. J. B. Cowen, of Tullahoma, Tenn., dropped dead in a drug store there on July 24th. Dr. Cowen entered the Confederate Army March 27, 1861, as surgeon of Chalmers' Regiment of Mississipians. He was transferred to Forrest's command Dec. 12, 1861, and served continuously as surgeon upon Gen. Forrest's staff until the close of the war. He was the last surviving member of Gen. N. B. Forrest's staff.

Dr. Cowen was one of the most noted surgeons of the South. He graduated in 1855 from New York University, New York City.

Dr. James Evans, of Florence, S. C., died at Clifton Springs, N. Y., on July 15th. He was in his seventy-eighth year. He was a surgeon in the Confederate Army throughout the Civil War, and was subsequently a physician of great prominence in both his own State and elsewhere.

He graduated from the Department of Medicine of the University of Pennsylvania, Philadelphia, Pa. in 1861.

Dr. A. J. Swaney, an aged physician of Gallatin, Tenn., died at his home on July 20th, after a long illness.

Review of Southern Medical Literature

New Orleans Medical and Surgical Journal, June, 1909.

House-flies and Disease.—Dr. Henry Shinner says that a source of danger that has probably been overlooked is that arising from the fact that feces often containing the bacillus typhosus is distributed along the tracks from railway trains. House-flies could very readily contaminate food from this source in the homes of persons living along the railroad. About ten years ago there was an interesting law-suit in Philadelphia, probably the first of its kind in the world. Mr. Gabriel Upton sued the city for damages on account of having contracted typhoid fever. A verdict of fifteen hundred dollars was awarded the plaintiff. The case was won largely on account of the great probability that the fever was carried to the individual by *Musca domestica*. The city diverted a sewer into a natural stream that ran by Upton's house and alongside his dining-room. Cases of typhoid fever were proven to exist on the line of the sewer. A large amount of fecal matter came down the stream, and at times it was necessary to start it going when the water was low. The case was appealed by the city to the Supreme Court of Pennsylvania, but the city settled for the full award of the jury.

It is hardly necessary to dwell longer on this subject of typhoid fever, as the possibilities of the case are so self-evident. Wherever flies can gain access to material containing the *Bacillus typhosus* they are almost certain to carry it to food.

House-flies have long been suspected of being agents in the dissemination of cholera, and a number of articles have appeared on the subject since 1853. That they contaminate the food of the well from the vomit or dejecta of those ill from the disease, in times of epidemics, is undeniable. The worst cholera months are said to be those in which these insects are most abundant.

A Brief Review of a Years' Progress in Typical Medicine.—Dr. J. M. Anders points out that the subject of hemoglobinuric fever is one that has a peculiar interest for American internists and the general practitioners of warm countries everywhere. Plehn has recently discussed its causes, prevention and treatment *in extanso*, and his main conclusions are worthy of notice. After showing the malarial nature of blackwater fever, Plehn affirms distinctly that, with few exceptions, the tendency of the European to sicken with blackwater depends on the length of his sojourn in the fever district, the condition being more prevalent when the colonists are of longer settlement than when there is a fresh arrival of newcomers. There are two weighty objections against the malarial origin of blackwater, namely, the frequent absence of malarial parasites from the blood and the failure of quinin therapy; but Plehn has shown by elaborate statistics that the plasmodia are always found when the blood is taken before the commencement of the hemolysis, while they are regularly absent during the height of the illness. The parasites may be seen to disappear spontaneously on the second or third days of the illness without medication.

It is owing to the dissolution of the blood that quick spontaneous disappearance of the malarial parasites from the circulation occurs, and this fact answers the principal objections to the theory that malaria is the origin of hemoglobinuric fever. From the facts adduced by Plehn, it would appear that blackwater fever develops only after a

certain time, "through the action of latent malaria without preceding fever." Protection against this disease can be established by shortening the period of residence in the country where it prevails, *e. g.*, Central Africa.

Atlanta Journal-Record of Medicine, May, 1909.

The Principal Cause of Typhoid Fever is the Common House-Fly.—Dr. J. W. Palmer says that the function of the "typhoid fly" in the human economy is to carry bacteria from one place to another and the one mostly carried by them is the typhoid bacilli and what they lack of being responsible for all cases of typhoid fever is more than made up in causing other infectious diseases. It has been shown that when the "typhoid fly" is most abundant, intestinal diseases are on the increase and these diseases decrease just as soon as there is a falling off in the prevalence of these flies. They are great factors in the spread of tuberculosis, so we see that the domestic fly has passed from a disgusting and troublesome pest to a dangerous enemy to human life.

The number of bacteria on a single fly will some times reach many millions, depending on the season of the year and the locality of the flies. Dr. L. O. Howard caught 256 flies from several different sources by means of sterile fly net, introduced them into a sterile bottle and poured into the bottle a known quantity of sterilized water, then shook the bottle to wash the bacteria from their bodies, to estimate the number of organisms that would come from a fly falling into a lot of milk and found that the average bacteria on each fly was over three millions, hence the importance of keeping the flies from milk. These flies will injest the typhoid bacilli, carry them around, deposit them with their "specks" which are as virulent and dangerous as the germs they leave when crawling around.

The Doctor—His Relation to Public Sanitation.—Dr. J. C. Beauchamp concludes his paper by quoting the following from a paper at the International Congress on Tuberculosis read by Dr. A. Newsholme, medical health officer to the local government board of England:

"Social physiology and medicine are even more complex than the same sciences applied to the individual, and statistics must be used to decipher their mysteries. As they are required, our duty is to use them with the same care to avoid fallacy and the same pains to control our results as are expected in deductive experiment. The servant of public health is working on the lives of men, and should be laying the foundation of natural prosperity and happiness. He belongs to an order of sanitary priests and belies his vocation and betrays his trust, if he does not use the material at his disposal fully and faithfully. He is his brother's keeper; and as in these matters knowledge means added life and happiness and usefulness to the communities whose welfare is his charge, he will reject no method of labor and spare no endeavor which offers the prospect of increased power over disease."

The American Practitioner and News, June, 1909.

Chronic Ulcer of the Stomach and Duodenum.—Dr. W. H. Wathen says that in the treatment of chronic ulcers that have resisted all medical treatment and cannot be cured except by surgical intervention, there is some difference of opinion. In the pyloric end, if the constriction is considerable, most operators only make a gastro-enterostomy, and these patients get well and may never suffer again. Gastro-enterostomy ought never to be done, as a rule, except where there is obstruction in the pyloric end of the stomach or in the duodenum that prevents stomach drainage; otherwise the contents of the stomach will pass out through the pylorus instead of entering the jejunum. This is a question that confronts us. It has been shown conclusively by men like Mayo and Moynihan that the majority of all cancers of the stomach originate in the base of an ulcer. Mayo puts it at 54 per cent. Because of that fact Rodman suggested, several years ago, that where there is considerable chronic ulceration and induration of the pyloric end, to make a resection of that part, including all ulcerated or indurated tissue, and after closing the duodenal and gastric ends, then make a gastro-enterostomy. Mayo has approved of this suggestion in some cases, and followed it, and so has Moynihan.

A Review of Several Thousand Personal Surgical Anesthetics.—Dr. H. C. Woodard believes that patients with lung and pleuritic susceptibility, and in pulmonary tuberculosis, the lighter the anesthetic is given means better chances for the patient. The use of the nitrous oxid and oxygen method does not work successfully with some of these patients; it frequently causes dyspnea and cyanosis. These patients do better with a minimum amount of anesthesia and large quantities of air; therefore, chloroform has proven to me to be the best because the air supply can be regulated better. When chloroform is ever used at *any* the dangers are lessened if nitrous oxid and ether are employed to produce anesthesia, and then switch to chloroform when the patient is breathing regularly, which

lessens the risk of getting a large dose suddenly inspired during the stage of excitement, which is the most dangerous time. It has been shown that most deaths from anesthetics occur during the stage of excitement; therefore, we should try to lessen this exciting stage as much as possible. The author makes it a routine practice, when possible, to give, twenty minutes before the anesthetic, subcutaneously, morphin, gr. 1-6-¼, and atropin, gr. 1-150-1-100, which relieves the patient of that excitement and shock so often seen prior to the anesthetic.

The Texas Medical Journal, June, 1909.

Acute Traumatic Tetanus Treated by Magnesium Sulphate.—Dr. A. P. Heineck says that the experimental work on this subject has been done chiefly, almost wholly, by Meltzer and Auer. They determined that intraspinal injections of magnesium salts are capable of abolishing completely in monkeys, at least temporarily, both tonic and clonic tetanic contractions. Clinically, experience seems to partially bear out the further statement of these investigators that intraspinal injections of magnesium sulphate in doses which do not affect the respiratory center or other vital functions, are capable of abolishing completely all clonic convulsions and tonic contractions in cases of tetanus, occurring in the human subject. The relaxing effects of the injections may last twenty-four hours or longer. None of the vital functions were influenced by the intraspinal injections of magnesium sulphate in the author's cases. In some parts of the body, such as in the lower extremities, the muscular relaxation following upon the injections was complete. In other portions, such as the mandibular, facial, or cervical muscles, the rigidity was very much lessened, but it was not completely overcome. This has been noted by other observers. In Miller's case, the injections determined a profuse secretion of mucus, bronchorrhea, at times severe enough to embarrass respiration, but easily controlled by atropine. Was there a relation of cause and effect between the injections and the elevation of temperature? This must also be decided by further study of the subject. Meltzer and Auer have determined that when administered by the intravenous route, the magnesium salts are very toxic, and that even small doses completely inhibit the respiration. Therefore, for the administration of these salts, this route, the intravenous route, should never be employed. We employed the agent only in the shape of injections in the spinal subarachnoid space.

The Southern Practitioner, June, 1909.

Eczema and Its Treatment.—Dr. R. W. Dake points out that eczema runs its course either as an acute or chronic disease, coming and going at no regular intervals, making its appearance upon any and all parts of the body; and if acute, becoming in time chronic, and lasting for many years, if not throughout the entire life time. It is the most difficult disease in medicine to combat successfully, and can only be cured, if indeed it ever is, by the most patient self-denial on the part of the patient, and the most painstaking care and perseverance upon the part of the physician.

In the treatment of eczema, we still have a great deal of latitude. At all times, if possible, we must find the underlying and exciting cause, and attempt to correct the same by what means we have in our power. Arsenic and the different tonics by some are supposed to exert a beneficial influence upon any and all cases of eczema, and while it may be so, the good effects from the same are derived from the tonic treatment. There is no specific to cure eczema that has yet been found. The key note to a successful treatment is to find the cause if possible, tone up the patient's system and increase the eliminative functions of the body in every way. Externally to use non-irritating applications or cosmetics to the eruption, clean the surface as far as possible, and use the cleanest, most healing and least irritating drug or drugs that you can find.

Virginia Medical Semi-Monthly, June 11th, 1909.

The Importance of Early Attention to Obstructive Respiration in Children.—Dr. J. A. White says that nasal catarrh, pharyngitis, laryngitis, bronchitis, cough, indigestion, malaise, nausea, restlessness in sleep, nervousness in the waking hours, headache, deafness, earache and suppuration of the ears, impaired circulation, mental dullness, etc., are all directly traceable to impeded nasal breathing. Such children are more liable to croup and laryngismus stridulosa than children with free respiration, and possibly diphtheria as well.

Obstructed nasal respiration is also a frequent cause of imperfect articulation and retarded development of speech. The nasal passages are the resonance chambers of the vocal apparatus, and unless kept in normal condition, the voice is altered in character, and the articulation frequently impaired.

From the first to the eighth year the development of the face takes place, and more rapidly than in later years, and the shape assumed by the maxillæ at this period has

an important bearing upon the resulting composite. Free nasal respiration is essential to their normal growth, and more or less deformity of these structures accompanies nasal obstruction, especially the high-arched palate, narrow alveolus and consequent irregular teeth. Deficient chest development is another sequel of nasal obstruction.

Scarlet Fever.—Dr. J. A. Owen believes that the care of the skin is one of the most important points in treatment; and here the author sounds a note of warning against the too prolonged use of emolients, which fill up the pores of the skin, prevent it from performing its normal function, and add to the strain on the kidneys.

Oiling of the skin should be limited to the eorly days of the disease, thereby hastening, and not retarding, desquamation. For this purpose, use eucalyptol, 1 dram, to an ounce of white vaseline or carbolized oil of cocoa butter, as you may elect.

Special efforts at hastening desquamation by detaching the skin from the general body surface do not shorten the quarantine, since the soles of the feet are the last to become loosened. This process may be hastened by soaking soles once or twice daily in hot soda solution for ten minutes; then in hot soap suds for equal periods; then rubbing briskly wtth a rough towel.

A general warm soap and water bath, followed by a 1 to 5000 bichloride of mercury bath, should be required before the patient is discharged.

Eclampsia.—Dr. J. W. Hiden concludes that the use of morphine in moderate doses, given hypodermically with veratrum, not only makes the latter drug safer, but materially aids in relaxing the vesical spasms, thus requiring less veratrum than would otherwise be the case. This is of no small import, for, though veratrum judiciously administered is unquestionably of great value, yet it is equally true that when given in heroic doses, it is a drug to be feared; and, with other aids at our command, he sees no necessity for the massive doses which some physicians have advocated. It should also be remembered that morphine is contra-indicated in only rare cases of puerperal eclampsia, namely, those due to an interstitial nephritis. When the pulse has been reduced within safe bounds by the combination of morphine and veratrum, a mixture containing potassium bromide, chloral and veratrum, given in moderate doses at stated intervals, is better than to rely on one drug only, especially so when this is a powerful cardiac depressant.

When we find the convulsions are difficult to control with the conservative use of drugs, it is far better to employ the hot, wet pack as an aid than to press the use of drugs to the most heroic measures. The latter course, so often followed, is what threatens to bring the most valuable remedies into disrepute.

The Alabama Medical Journal, June, 1909.

A Study in Etiology of Typhoid Fever.—Dr. H. Johnston believes that if dust or soil infection is one of the usual disseminators of typhoid fever we would reasonably expect to find that children were frequently attacked. It is probable that the frequent mildness of the attack or atypical features of typhoid in children allow many cases to escape recognition. But without considering this, typhoid in children is not at all uncommon. In the Washington investigation one of the things markedly brought out was the extreme prevalence of typhoid amongst children. There it proved largely a children's disease, and being true in this instance, under the same careful investigation it would probably prove true elsewhere. If this frequency of typhoid fever in children is explainable by a dust or soil infection, we would reasonably expect that in early childhood the sexes would be attacked in about the same proportion; but as childhood advances boys and youths should show a preponderance because they would be more liable to such infections than girls and young ladies. The Washington statistics show that from five to nine years girls are little more often attacked; from ten to fourteen boys lead; from fifteen to nineteen in proportion to population boys are twice as often attacked; from twenty to twenty-four the proportion is almost three to one in favor of the girls. I mean that three boys are attacked to one girl. This seems significant.

Cholecystitis as a Complication and Sequel of Typhoid Fever.—Dr. E. M. Prince points out that the most constant symptoms of cholecystitis are localized pain, tenderness and tumor. Mayo Robson claims that in all gall-bladder inflammation there is almost invariably a tender spot at the junction of the upper two-thirds with the lower third of a line drawn from the ninth rib to the umbilicus. The pain may, however, be referred to the epigastrium and vermiform appendix. The onset is usually sudden and chills and vomiting may be present. In febrile cases there may be a rise in the temperature. If the fever has already subsided, the temperature may jump up very suddenly. A leucocytosis of 10,000 to 15,000 is usually present. Jaundice is seldom present, unless there is an extension of the inflammation to the cystic and com-

mon ducts. This condition may persist for a few days with a disappearance or perforation.

Perforation is usually ushered in with sudden pains in the region of the gall bladder. Symptoms and signs of general peritonitis soon follow, the clinical course being much the same as in peritonitis from perforations of any other cause.

These cases of chronic cholecystitis are often operated upon and the presence of the bacillus typhosus demonstrated months or years after the attack. Then if many survive the acute cholecystitis which very likely resulted during the typhoid fever, it is quite reasonable to think there are many who die from the same cause during the course of the fever. The author believes that acute cholecystitis of sufficient severity to demand operative procedure is of far more common occurrence than has been heretofore supposed.

Gulf States Journal of Medicine and Surgery and Mobile Medical and Surgical Journal, June, 1909.

Immunity.—Dr. J. F. Peary says that certain germs, the diphtheria bacillus, the pneumococcus and perhaps the typhoid bacillus should be included, localize themselves by preference in certain structures, and from these points of vantage attempt to destroy their hosts by diffusing their toxins into the circulation. These are illustrations of the self-limited diseases, their cure effected through a successful system of reaction, being due to the establishment of an active immunity. The living cells, provoked by the presence in the circulating fluids of new irritants, adjust their chemical activities in such a way as to develop antitoxic substances combining with or neutralizing the toxins liberated by the germs. Sometimes the reaction is so promptly successful that the infection scarcely gains a foothold and we have an abortive case. In the mild cases the defensive reaction is well maintained though less promptly successful. In other cases, the resistive forces are barely able to hold the citadel of life. These are the close calls. In still other instances the patient is overwhelmed by a flood of toxins, the opsonic index is put out of business and death promptly closes the scene.

National Prescribing and the Commoner Prescription Errors.—Dr. S. F. Hale emphasizes the following: A cardinal rule in prescribing should be, never to prescribe a preparation of whose exact composition we are ignorant, yet how few of us live up to such a rule. How often are we the dupes of the drug manufacturers in this respect; we accept what their preparations are said to contain, or to represent, as most of them have it, as "gospel" and believe the composition of them variable, though without anything but faith in the honesty of the manufacturer to support our belief. But few of us are sufficiently enough versed in chemical nomenclature to recognize the poly-syllabic thirty-five letter compound acetylamidobenzenetriethylxanthine as a mixture of acetanilid and caffeine, and fewer of us still would recognize the composition said to be safer than chloral that is "a compound of chloraethanal with a higher polyatomic alcohol," as nothing more than a mixture of chloral and glycerine, and certainly few physicians are stupid enough to believe that glycerine renders less dangerous a given amount of chloral.

The Therapeutics of Typhoid Fever.—Dr. H. A. Moody says that it is now universally admitted that the bacillus of typhoid and the malarial plasmodium may be found in the same individual.

Indeed it may almost be assumed that during the autumn and early winter months every person living in malarial territory is infected to a greater or lesser degree, and that whatever other pathological condition may supervene it will be more successfully managed if the malarial infection be first eradicated. Therefore it would seem rational to give case A daily doses of from 15 to 25 grains of quinine bisulphate, in capsules, divided into three portions, and one administered at nine, twelve, and three o'clock daily for three days, the doses, of course, depending upon the condition, age and weight of the patient.

The author has repeatedly seen a disturbed and irregular temperature settle down to the regular typhoid curve after thus eliminating the malarial element.

Atlanta Journal-Record of Medicine, June, 1909.

Vaccines in the Diagnosis and Treatment of Tuberculosis.—Dr. E. C. Trash believes that Von Pirquet's skin-method is decidedly the best for diagnostic purposes. Bacilin emulsion gives best results as a therapeutic agent. Bacilin emulsion, combined equally with bouillon filtrate has some advantage in many cases over either one alone. Reactions should always be avoided, but if they should occur there should be more caution used in the administration of tuberculin afterwards, for many reactions mean supersensitiveness when tuberculin should be abandoned entirely. One should be cautious in administering vaccines, being careful always to administer a sufficiently small dose. The cases that respond best to treatment are the ones that have

tubercular processes in the firmer tissues. Properly selected febrile cases respond to treatment. Other lines of treatment should not be neglected when one is administering tuberculin. Tuberculosis in many instances is arrested, and not cured. It will remain arrested if the one suffering from the disease conducts himself properly. The patient should not be dismissed too early. In the administration of these agents other means of restoring health should not be overlooked, and eternal vigilance is its price.

Notes on Treatment of Typhoid Fever. —Dr. J. B. Baird says that if either diarrhœa or pain of any kind should prove troublesome, opium in some form should be used. We need not hesitate for fear of "masking symptoms" or of "obscuring developments." The remedy is given to prevent untoward symptoms and to forestall disastrous developments.

Water may be drank freely. The food should be liquid for at least ten days after the subsidence of fever, and of digestible and nutritious quality. The quantity should be ample for nutritive necessities, but limited, of course, by the digestive capacity—milk, butter milk, broth, light soups, meat extracts, gruels, tea, coffee, cocoa, etc., are sufficient. Some practitioners of repute are more liberal in the dietary and allow bread, toast, eggs and similar soft articles. Milk, when it does not disagree—and it is a fact that it agrees with the vast majority of persons—is an ideal food. An unfounded and a most unfortunate prejudice has recently been manifested against sweet milk as a diet in this and other diseases. This erroneous estimate of an admirable article appears to be restricted to narrow territorial limits, and it is devoutly hoped that the little endemic of lactophobia will soon abate.

Virginia Medical Semi-Monthly, June 25th, 1909.

The Extent and Importance of the Venereal Diseases in the Social Body. —Dr. F. T. Simpsons says that when we review the vast extent of the venereal diseases, their damaging effects upon individuals of both sexes of all ages and their corrupting influence upon the seed of humanity, it is difficult to conceive of any subject more important to society than the prevention of the spread of these secret poisons which have doubtless in the course of the ages wiped out many stocks of people. It has been contended by some that there is no need of interference in this matter, since these diseases are weapons of nature, to inflict punishment upon the immoral and to eliminate the morally weak. This is a doctrine hard to believe in view of the fact that so many pure and innocent women and children are involved. Morality has been evolved largely through intelligence and these diseases are incurred in ignorance, both of their existence and their results. Morality will be greatly increased and strengthened by enlightenment, for morality is to a large extent enlightened self interest. Just as the most powerful agent in the reduction of alcoholism, which through all the preceding centuries has been so universal and terrible an evil, has been the diffusion of exact information among the people regarding the alcoholic diseases, and the invariable impairment of every kind of human capacity, physical, mental and moral, by its daily use in anything but physiological amounts; similarly, the author believes the most potent means of diminishing the venereal diseases will be the spread of exact information as to their disastrous results, immediate and remote, upon the human system.

Gaillard's Southern Medicine, June, 1909.

Summer Diseases of Children.—Dr. W. B. Fitch points out the necessity for scrupulous cleanliness in regard to nursing bottles and nipples should be impressed upon the mother or nurse. The careful selection of an artificial food, judicious bathing, with plain or alkalinized water, and the immediate removal of soiled napkins to avoid excoriation are imperative. An abundance of pure, cool spring water, even though it be vomited (especially in cholera infantum, even when retched and vomited) should be given; while water is essential, it should always be given frequently and in small amounts. If vomiting does occur, its ejection from the stomach aids in washing out this organ, and sometimes by overcoming gastric irritability, subdues vomiting. Ice is frequently enjoyed and should be crushed and tied in a gauze cloth to prevent the swallowing of large pieces. It is absolutely imperative that a reliable toilet powder, especially the borated products, should be copiously and liberally used, since they allay the distress caused from the acrid discharges. Excoriation from acrid stools may be prevented by annointing the neighborhood of the anus with olive oil, or, better still, mutton tallow, a heavy coating of the latter prevents the delicate skin from contact with the destructive secretions.

Book Notices.

Hand-Book of Diseases of the Rectum. By Louis J. Hirschman, M. C., Detroit, Michigan, U. S. A.; Fellow American Proctologic Society; Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine; Attending Proctologist, Harper Hospital; Consulting Gynecologist, Detroit German Polyclinic; Collaborator on Proctology, "Physician and Surgeon"; Editor Harper Hospital Bulletin; Chairman Section on Surgery, Michigan State Medical Association, Detroit of Medicine, etc. With one hundred and forty-seven illustrations, mostly original, including two colored plates. St. Louis: C. V. Mosby Medical Book and Publishing Co. 1909. $4.00 net.

Although nothing new or startling is brought out, yet the book fills a long felt want, namely, an office manual-guide for the general practitioner. As in all other lines of medical endeavor, the author emphasizes the importance of taking nothing for granted, but insists upon actual examination of the patient seeking advice. The field and limitation of local anesthesia in rectal surgery are thoroughly discussed. Owing to the important information gleaned from a careful examination of the stool, a chapter is devoted to the requisite technique. Above all, the subject-matter is based upon personal observation and is not driblets from others. The cuts are admirably executed and materially simplify the text. The printers are to be congratulated upon the excellent workmanship, and the author upon the thoroughness of his contribution to the knowledge of that oft-neglected subject, rectal diseases.

The book contains 375 pages.

Treatment of the Diseases of Children. By Charles Gilmore Kerley, M. D., Professor of Diseases of Children in the Polyclinic Medical School and Hospital; Attending Physician to the New York Infant Asylum and Maternity, etc. Second edition, revised. Octavo, pp. 629. Price, $5.00. Philadelphia and London: W. B. Saunders Company, 1909.

This work, prepared for the general practitioner, has met a positive want. It deals with modern methods of management of patients, in greater detail, than has been attempted in other similar works.

The means and methods suggested are not drawn from the literature, but are based upon the actual extensive experience of the author. The book is highly commended to the clinician.

The reception of the first edition of this book must be very gratifying to the author and publisher. Many improvements have been made in this, the second edition, and we are sure that the book will be more appreciated than the first edition.

Dietetics for Nurses. By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the College of Physicians and Surgeons, Baltimore, and John Ruhrah, M. D., Professor of Diseases of Children, etc. Second edition revised and enlarged. Octavo, pp. 395. Price, $1.50. Philadelphia and London: W. B. Saunders Company. 1909.

This book has been well received. The principal change in the present edition is the re-writing of the article on milk, and the addition of a chapter on the simple methods used in the detection of certain food adulterations and preservatives. The book will be found suggestive and useful.

International Clinics. A Quarterly Review of Illustrated Clinical Lectures and Especially Prepared Original Articles by Leading Members of the Medical Profession Throughout the World. Vol. 2, Nineteenth Series, 1909. Philadelphia: J. B. Lippincott Company.

The reputation of this well-known publication is well known to all lovers of original work. Among the articles which especially impress us in the volume before us are the following:

"Mineral Waters in Syphilis," by Carriere of Paris. An exposition of the value of sulphur waters in rendering mercury soluble, in preventing mercurialism, in ennabling the patient to take large doses.

"The Cammidge Reaction," by Goodman of Philadelphia. Any attempt to perfect a test for pancreatitis is worthy of attention.

"Surgical Pneumothorax as a Treatment for Phthisis," by Dumarest of the Hauteville Sanatorium, Paris. In cavities he pumps nitrogen into the pleural cavity, compressing and immobilizing the whole lung, after the method of Forlanini. Three brilliant successes are analyzed, with directions and cautions. It looks like a good method.

The volume is bound in its usual style which is attractive. It is somewhat larger than many of the former editions, and the illustrations are unusually good

Thornton's Pocket Medical Formulary. New (9th) edition. Containing about 2,000 prescriptions, with indications for their use. In one leather-bound volume. Price, $1.50 net. Lea & Febiger, Publishers, Philadelphia and New York, 1909.

It would be difficult to mention a more

frequently useful work than Thornton's Formulary. The author is peculiarly qualified to render such a service, as he unites in himself a knowledge of the three necessary branches, being a graduate in pharmacy, a professor of materia medica in a leading medical college, and an active practitioner of many years' standing. He has here presented the collective experience of the medical profession as to the best measures for combating each disease. He has arranged the various diseases alphabetically, and under each has given the best formulæ for simple cases, as well as for the various stages and complications, with quantities both in the ordinary and metric systems. A feature peculiar to this work, and one of obvious value, is found in the *Indications* and annotations for a choice between the various formulæ according to the conditions to be met. Critical study has been given to each formula in all its parts, as well as to palatability and compatibility. No point desirable in such a work has been overlooked. The most experienced physician will find it useful as a reminder, and his younger confrere will perform his duty better both to his patient and himself with the brst collective knowledge of his profession at hand for quick reference. That practitioners widely appreciate its value is shown by the frequent demand for new editions, a point of special importance in a work dealing with so rapidly advancing a department as therapy. In each of its nine editions, the author has embodied the latest and best information, so that the profession may consult this hand-book with confidence in finding it always up to date.

Vaccine and Serum Therapy, Including also a Study of Infections, Theories of Immunity, Opsonins and the Opsonic Index, By Edwin Henry Schorer, B.S., M.D., Assisiant Professor of Parasitology and Hygiene, University of Missouri; Formerly Assistant Rockafeller Institute for Medical Research. New York City. Illustrated. St. Louis: C. V. Mosby Co. 1909. $2.00 net.

In this work the author has brought together the most important features of the recent contributions to the subjects of vaccines and immune sera. Infections and immunity are briefly discussed. The greater part of the book is concerned with a discussion of opsonins, the methods of determining the opsonic index and the importance of opsonins in health and disease. He has described clearly the technique employed in obtaining the opsonic index, and has pointed out the difficulties and inaccuracies associated with the method. The use of the various vaccines is taken up to some extent, and the uses of the various sera are also considered. In short, the little work is a good resume of the enormous amount of work which has been done in this field in the last five years, and the book is well worth the study of anyone who desires to familiarize himself with this important subject.

Bier's Hyperemic Treatment in Surgery, Medicine and all the Specialties: A Manual of Its Practical Application. By Willy Meyer, M. D., Professor of Surgery at the New York Post-Graduate Medical School and Hospital: and Professor Dr. Victor Schmieden, Assistant to Professor Bier at Berlin University, Germany. Second Revised Edition. Octavo of 280 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, $3.00 net.

The first lines of the introduction to this book embody the value of its purpose: "The physician who intends to make use of artificial hyperemia must first have a clear idea as to what he wishes to accomplish with it." The pages which follow try to suggest the indications and the ways of fulfilling these.

While hardly more than an extended brochure, the work of these two distinguished authors very graphically presents the whole subject, from the simple reactions caused by bandage congestion to the profound obstructive hyperemia brought about by apparatus of special construction. Illustrations are numerous and excellent, and the typographic arrangement readily presents the purpose in a way to attract the attention and interest of the student reader.

Diet in Health and Disease. By Julius Friedenwald, M. D., and John Ruhrah, M. D. Third Edition, Thoroughly Revised and Enlarged. The W. B. Saunders Company. Philadelphia. 1909. Price, $4.00.

We have on two occasions spoken in complimentary phrases of the first and second editions of this excellent book on diet, the popularity of which rests upon the fact that its authors have endeavored to make it a practical handbook for the physician. The book is somewhat larger at the present time than when it first appeared. After opening chapters upon the chemistry and physiology of digestion and classifications of foods, beverages, and stimulants, it proceeds to consider the various factors in their bearing on diet, infant feeding, and the diet for various special conditions and diseases, the latter forming by long odds the most complete portion of the book. There are also chapters devoted to army and navy

rations and to the dietaries of a number of well-known public institutions, and recipes as to the preparations of certain foods commonly given to invalids. In the discussion of the subject of alcohol we are glad to note that the authors make the following statement: "The use of alcohol is of undoubted value in medicine, and the sweeping condemnation it has received from many quarters in recent years is not justified. Its use and abuse have been confused."

Essentials of Bacteriology. By M. V. Ball, M. D., formerly Instructor in Bacteriology at the Polyclinic. Sixth edition, thoroughly revised. 12 mo. volume of 290 pp.. with 135 illustrations, some in colors. W. B. Saunders Company, 1908. Cloth. $1.00 net.

The writer reviews the subject of bacteriology in a concise manner, covering in a few words the essentials in this ever-broadening field. Nearly every new subject of importance has been touched upon in the last revision but, as in other books of a like nature, too much of the text is misleading, since it is impossible to tell in a few words important scientific discoveries which take many chapters in the original descriptions. The author says that Trudeau uses tuberculin by beginning in afebrile cases with 1-1000 mg. B. E. or B. F., increasing 1 decigram every three days until 1 cc. can be injected without causing any reaction." The classification of bacteria at the end of the book affords an excellent working table for the laboratory.

Medical and Minor Surgical Diseases of Women. By Samuel Lile, M.D., late Surgeon-in-chief to Lynchburg City Hospital; Surgeon-in-chief to St. Andrew's Home, etc. Illustrated. Pp. 314. Southern Medical Publishing Co., Baltimore, 1909.

This book was written with the aim of placing the minor details of this class of work in the hands of students and practitioners as a ready reference. Dr. Lile does not deal with the major surgery at all, as only a small per cent. of physicians ever become operators; the majority being so situated that their patients cannot be properly cared for after the operation; so his object has been to give only the gross physiological anatomy of the female generative organs and the pathological anotomy. The author has dealt carefully with diagnosis, medical treatment, sepsis, asepsis, antisepsis, hygiene, etc. Dr. Liles differentiates the major from the minor surgery and clearly states what is to be done with those cases belonging to the former class. The book is well illustrated and the author gives many of his own experiences.

The Psychic Treatment of Nervous Disorders. By Paul Dubois. Sixth Edition, Revised. Price, $3.00. New York: Funk & Wagnalls Company. 1909.

The new edition of this work has an excellent introduction by Dr. Dubois which clearly sets forth the object of the work and the foundational principle of the same. It is one of the best works on psychotherapy. The principles are sound, and if carried out lead to cures, not alone to temporary relief. The writer distinctly states that psychotherapy as the sole weapon is only to be used in certain cases. It is a book that is valuable, and should be read by every practitioner, but is dangerous in the hands of all those who attempt to apply its principles without thorough medical education. The rocks upon which the author's success are found are thoroughness of examination, sympathy, confidence, persuasion and education.

Studies of the Human Form, by Robert W. Shufeldt, M. D., Major and Surgeon, U. S. Army (retired). F. O. Davis Company, Medical Publishers and Printers, 1914 and 1916 Cherry St., Philadelphia. Price, $15.00 net.

The Study of the Nude with pictures as illustrations of the text becomes more and more fascinating as progress is made by either the Artist, Sculptor or Scientist. Most beautifully is this expressed by Whittier:—

"Lovely indeed the Mimic works of Art;
But Nature works far lovelier".

When Dr. R. W. Shufeldt first began the work of collecting and classifying the nude in the "Studies of the Human Form" he did not realize the enormous undertaking he contemplated, but gradually as month after month he continued in his efforts toward a perfect classification, he disclosed to his personal view the task he had set himself.

After seven years of hard labor in his Studio he gives to the world the only work of its kind ever published in this country and superior to any other ever published in Europe.

The contents of the "Studies of the Human Form" show how thoroughly Dr. Shufeldt has done his work.

The value of this most remarkable publication is apparent after even a slight perusal of its pages.

The book sells for $15.00 net.

CHEMICAL FOOD is a mixture of Phosphoric Acid and Phosphates, the value of which Physicians seem to have loss sight of to some extent, in the past few years. The Robinson Pettet Co., to whose advertisement (on page XVI) we refer our readers, have placed upon the market a much improved form of this compound, 'ROBINSON'S PHOSPHORIC ELIXIR.' Its superiority consists in its uniform composition and high degree of palatability.

Abstracts of the Leading articles of the month.

Radioactivity and Carcinoma.—Barlow, in The British Medical Journal, says that the original question with which he started—namely, Do the physical agents which are commonly supposed to give rise to cancer (clay pipes, soot, etc.), and do samples of carcinomatous material afford evidence of the possession of radioactive properties?—is not conclusively answered. In certain respects they behave like the radioactive materials of the chemist or physicist, but in no single instance do they respond to all the criteria of recognized radioactivity. The author says that many of the substances affect a photographic plate in the dark; but, on the other hand, few can act on the plate if a screen is interposed, and even in those instances in which a positive result is obtained under these circumstances, tt is doubtful whether the interposed celloidin screen is fairly so called. Nevertheless, it is doubtful whether the power of acting through a screen is a necessary criterion of radioactivity, since he has demonstrated that albuminous compounds of recognized radioactive substances may possess a power of acting on the photographic plate which will not traverse an extremely thin screen, and, indeed, may be devoid of photographic powers altogether. In the latter respect they are comparable with clay pipe, inasmuch as neither type of substance acts on a photographic plate and both accelerate the discharge of an electroscope. In the same category comes carcinoma material which has been extracted with acetone or with water and subsequently with ether. Possibly, too, some specimens of spleen and of the inorganic constituents of bone are to be reckoned in the same class. He takes up the cancer question, and speaks of the different parts of the body attacked by carcinoma. The writer mentions the theory that it is possible that the radioactivity is the common factor which must be capable of stimulating the growth of certain cells while it depresses the growth of others, which must reside in substances of the widest diversity, which must act with varying intensities in different cases though always with comparative slowness, the natural action of which must be progressive so long as it persists. The x-rays cause carcinoma, they stimulate (like other radioactive substances) the growth of cells, and, again, they retard the growth of cells, carcinomatous material, noncarcinomatous material, extracts of animal tissues, various substances usually regarded as casually related to carcinoma, possess properties resembling those of recognized radioactive substances to a greater or less degree when considered from the physicist's point of view, and there is evidence that hey possess powers of stimulating or depressing the division of animal cells. Such similarities are at least suggestive.

Treatment of Incoercible Vomiting of Pregnancy.—Wallich (Ann. de Gyn. et d'Obst.) mentions the three classical diets in vomiting of pregnancy as, milk diet, water diet, and lactovegetable diet. Pinard advises the milk diet whenever we have the symptoms of autointoxication, only a small dose of milk being given at a time. If we find that these small doses are well borne, then the amount of milk taken is to be increased. If the urine increases, and vomiting ceases a cure is obtained; but in some cases even small doses of milk cannot be retained. We must then give only water, in small doses. This diet cannot be persisted in for more than four to eight days, since it is the diet of inanition. At the end of some days a small amount of milk is added to the water and the p oportion of milk gradually increased. When the water diet is not well borne, all feeding by stomach must cease for twenty-four to forty-eight hours. Subcutaneous injections of serum are made at the same time to replace the water withdrawn from the system in the urine and feces. Another diet that has been proposed consists of farino-vegetable soups and purees, which produce no poisons, but these substances are not better borne than milk. Calming drugs must be given at the same time. Inhalations of oxygen lessen the number and severity of the vomiting attacks. If the urine increases in amount and vomiting ceases, all will be well. We must not wait too long while using these measures, but if they fail should have recourse to the induction of abortion. When there is an acceleration of the pulse and fever, it is time to use obstetrical interference. In some cases the cause of the vomiting is uterine or ovular, and in these cases only abortion will do any good.

Marriage of Women Having Cardiac Diseases.—Renon (Gaz. des Hop.) believes that the question of whether a woman having cardiac disease should marry is to be determined by the form and extent of that disease. Many women having well-marked cardiac disease pass successfully through a number of pregnancies. The question whether there are changes in the arterial tension and kidney condition is important. If there be constant alterations in the tension of the pulse, marriage should be avoided. The kinds of trouble to which

women are subject are two. Insufficiency of the heart is generally found in the earlier part of the pregnancy, about the end of the fourth month, when there are dyspnea and palpitation, sometimes ending fatally. Toward the end of pregnancy acute pulmonary edema may supervene, and the case may end fatally in a short time without delivery having been effected. In cases of cardiacs who have married, the pregnancy should be carefully watched, the urine examined frequently, and the general nutrition watched. After the fourth month all fatigue should be avoided and the patient should live a very quiet life. Labor, if slow, should be terminated by version or forceps. Hereditary arthritism and aortic lesions should contraindicate marriage for the sake of the offspring, who will probably inherit a tendency to these conditions. Cardiacs should not marry other cardiacs or relatives.

Tumors of the Cerebellum in Children.—Hepfner (Wratschebraja Gazeta) mentions the case of a girl six years of age, in whose case the diagnosis of cerebellar tumor was arrived at by exclusion during the patient's lifetime, certain symptoms having suggested an organic affection of the brain, aside from an accurate localization of the growth. These symptoms consisted in persistent headache, prolonged vomiting without visible involvement of the gastrointestinal canal, complete inability to stand, sit or even hold the head up; at last, spastic paraplegia of the lower extremities. Furthermore, choked disk was distinctly demonstrable. In the differential diagnosis a tumor of the brain cortex was excluded by the absence of all psychic disturbances, unilateral paralysis of the extremities, or convulsions. An affection of the middle brain was contraindicated by the absence of paralysis of the oculomotor nerves, ptosis or strabismus, as well as contralateral hemiplegic paralysis of the extremities. The tumor had accordingly to be located in the cerebellum, this assumption being justified by the clinical symptoms presented by the patient. While headache, vomiting and choked disk are general symptoms which are produced by intracranial neoplasms of different localizations, these symptoms are most distinctly marked in tumors of the cerebellum. The growth was found to be a very large sarcoma, which exclusively occupied almost the entire cerebellum, without extending to the other parts of the brain. The case, therefore, furnishes an interesting contribution to the study of malignant tumors of non-tuberculous character in children.

Chronic Eczema of Infants.—Feer, in The Munch. med. Woch., says that real chronic eczema of infants is a constitutional disease and must be differentiated from various forms of dermatitis that likewise affect infants. The etiology of such eczema depends upon two factors—congenital predisposition and feeding. Overfeeding and chronic constipation are the usual concomitants of the seborrhoic form of eczema. Improvement and cure usually follow the change from pure milk diet to mixed diet at the end of the first year. The second variety of eczema occurs almost exclusively in artificially-fed children. Such children are weak, pale and thin. The eruption is not as strikingly evident as in the first form, and consists of scattered patches of dry, scaly infiltrated lesions that may be found over the whole body. While local treatment of these forms of disease must be used in every case to make the children comfortable, the cure depends not upon this treatment, but upon changes in the diet of the children. Reduction of milk is the principal point of managing these cases, and carbohydrate food must be given to make up the deficiency in the food-stuffs. After the fourth month of age this is very easy, as the child can be fed on various cereal preparations and also given fruit juice. In later months the albumin of eggs must be avoided, as it is as badly borne as the milk preteids. Whey mixtures may be used in cases where the child is too young to take any other food but some form of milk. The whey may be modified with sugar and cereal gruel, a diet with which Finkelstein had great success in the treatment of eczematous children.

On the Treatment of Severe Urethral Strictures.—Cohn (Berliner klinische Wochenschrift) says that there are a number of strictures of the urethra in which there is, suddenly, an apparent relapse after a certain distention has already been attained by means of gradual dilatation. In these cases, in addition to the organic changes in the urethral membrane, there is a state of congestion. In accordance with the method of v. Frisch, the author restored the caliber of the urethra for the introduction of a sound by means of the instillation of a few drops of a one-per-cent. adrenalin solution. Injections of adrenalin solutions were used with good results.

Ten cubic centimeters of a 1:5000 adrenalin solution was injected into the urethra and removed after about five minutes. Immediately thereafter it was possible to introduce a bougie of suitable size. By means of repeated injections of this kind it was possible to introduce bougies of progressively larger sizes. In the case of very sensitive patients the addition of eucaine is recommended. Eucaine, and other anes-

thetics, *per se*, do not cause a contraction of the mucous membrane.

The following case will serve as an example of the use and action of the adrenalin solution in one of the cases cited by the author:

P., forty-two years old, contracted gonorrhea for the first time about twenty years ago, and since then has had it at intervals of several years. During the last three years the patient noticed a thin stream. A physician diagnosed a stricture of the urethra and employed bougies for three months. The stream of urine improved. After a lapse of a year and a half the patient again noticed a thin stream, and since about four weeks was obliged to urinate frequently, and there was some difficulty in urination.

The examination showed a stricture of the cavernosus urethra. The stricture was discovered by means of a button-sound, No. 18, Bougie No. 12 entered the stricture, but did not pass through. Bougie No. 10 passed through easily. At intervals of two days bougies were introduced of a continually increasing size up to 18. At this point it was not only impossible to pass a larger size, but even No. 14 could not be introduced. Ten grammes of a 1;5000 solution of adrenalin was injected into the urethra of the patient and allowed to act for a few minutes, whereupon it was possible to introduce a No. 19 bougie. The same experience was repeated twice in the course of the treatment. In both instances the injection of the adrenalin solution made it possible to introduce a larger sized bougie, up to No. 26. The urinary stream is normal and the patient is able to urinate without difficulty.

He comes to the conclusion that adrenalin is a good adjuvant in cases of stricture of the urethra that are complicated by congestion.

On the Treatment of Bronchial Asthma.—Jagic (Berliner klinische Wochenschrift) calls attention to the fact that we possess a remedy in adrenalin to check attacks of acute asthma. He states that he has seen such prompt and strikingly good results follow this method of treatment in several cases of genuine bronchial asthma in various instances in the last three years that he considers adrenalin preferable to all other indicated remedies, such as morphine, atropine, chloral hydrate, etc: This pertains especially to the use of adrenalin in the case of very young individuals in whom there are no complications, such as emphysema or diseases of the heart and arteries. No untoward after-effects, even after a long-continued use of this remedy, were observed. The initial action of the adrenalin is exerted upon the sympathetic nerves.

The adrenalin was administered subcutaneously in doses of 0.5 Cc. of a one per cent. adrenalin chloride solution. After about ten minutes, as the attached histories of the cases show, there was a sudden alleviation of the attack. In more severe cases the dose was increased to 1 Cc., which put an end to the attack within five minutes.

Statistics of General Anesthesia.—Neuber (Deutsche Med. Wochensch.) gives a total of 21 deaths among 71,052 anesthesias in the year 1908, that is about 1 in 2000. It is somewhat higher for chloroform than ether, although the latter is the more often followed by post-operative pneumonia In Germany, however, ether has displaced chloroform to such an extent that the latter is now employed in only about one-fourth of all cases. The old Esmarch inhaler has maintained its prestige. The development of local anesthesia has done much to reduce the dangers of anesthesia—at least 2 per cent. The method preferred by the author consists in the administration of veronal on the evening of the operation and of 0.0005-0.0008 grm. scopolamin and 0.0 to 0.02 morphin, one to two hours before narcosis. The anesthesia is slowly initiated and only up to the point of arrest of pain and prevention of resistance, but not as formerly to the point of complete arrest of the reflexes. This plan has the advantage of being more humane by avoiding any psychical excitement before, during, and after operation, while vomiting and post operative pain are prevented and the danger of pneumonia greatly reduced.

Polyserositis.—Wiczkowski (Wien. klin Woch.) has seen during the last five years 35 cases of a simultaneous inflammation of several serous membranes, fatal in four instances. The polyserositis develops in three stages. In the first there is merely a serous effusion in the pleura, pericardium and peritoneum, but no fever or apparent changes in the internal organs or glands and the patients complain only of general weakness and vague pain in the chest and abdomen. Adhesions form and the condition grows worse under increased temperature, with debility and irregular stool Exceptionally the condition may improve and the improvement may persist for several years. The third stage is characterized by high fever, cachexia and edema of the feet, and autopsy reveals cheesy degeneration of the lymph glands, parenchymatous degeneration of the internal organs and tubercles disseminated over the serous membranes while the lungs and digestive tract are intact. Treatment consists

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general strengthening measures, forced feeding and possibly injections of some preparation of arsenic, supplemented by early aspiration of the effusion, this latter having a favorable effect on the circulation and nourishment of the regions involved and hastening the development of adhesions which modify favorably the further course of the affection. The negative findings in the heart, lungs and kidneys differentiate the polyserositis from disease in these organs. He emphasizes the constant absence of the usual symptoms of pleurisy or peritonitis, also the simultaneous involvement of all the serous membranes, suggesting some general cause, probably endotoxins generated in some comparatively small tuberculous focus, these endotoxins reaching and irritating the serous membranes. Some old focus in the lymph glands or urogenital apparatus was discovered in all the cases that came to autopsy. This assumption of the etiology explains the benefit from prompt evacuation of the effusion which removes quantities of these endotoxins while favoring production of adhesions. The author is convinced that many cases of alleged "pericardiac pseudocirrhosis of the liver" and "chronic hyperplastic perihepatitis" really belong in this class of polyserositis.

The Hot Air Treatment of Acute Suppurations of the Hand.—Islen (Munchener Med. Wochenusch) gives the results obtained from this method of treatment. Before resorting to it the pus is evacuated, this being done under anesthesia. The incisions are made on the palmar surfaces and sides of the fingers down to the tendon sheaths, the site of the suppuration sought, pus and necrotic tissues removed by irrigation with saline solution, and the wound cavity covered with iodoform gauze, The hot air treatment is begun on the day of the operation, at first twice daily for a period of two hours, the gauze, if necessary, being previously loosened by immersion of the affected part in a warm saline solution. During the interval an alcohol dressing, 90 per cent., is applied or one moistened with aluminum acetate. Abscess cavities are covered with iodoform, the pus never being expressed but washed out with a saline solution. It is important to remove dead skin. For the hot air application Bier's apparatus is employed, the temperature varying from 90 to 110° C. This method produces marked relief of pain and greatly shortens the healing process. The results were often surprising, suppuration ceasing after a few days and the wounds assuming a clean appearance and closing in eight to fourteen days. The tendons were preserved and the cicatrices were soft. In seventeen cases of phlegmonous tendo-synovitis necrosis of the tendon occurred in only one instance, that of a woman seventy-two years old.

The Effect of Hypophysis-Extract Upon the Bloodvessels.—(Wiener med. Wochschrift). The extract employed by Dr. Pal was prepared from the posterior nervous lobe of the hypophysis, 1 ccm. corresponding to 0.01 of the dried substance. About two per thousand of the efficient substance were contained in the extract. Intravenous injection was followed in the first place by a brief transitory lowering of the blood pressure, passing into a moderate rise of pressure. The same phenomenon could be determined over again by repeated infections. The hypophysis-extract furthermore showed a well-marked diuretic action. The examination of excised arteries from beeves in Ringer's solution to which hypophyseal extract had been added, served to show that the carotid, mesenteric, and femoral artery underwent shortening (as under the addition of adrenalin), whereas the renal arteries become lengthened (opposite findings under addition of adrenalin), at least in their peripheral portion towards the renal pelvis. The findings upon the coronary arteries were not entirely uniform. The pupil of the excised eye of frogs is dilated by hypophyseal extract as well as by adrenalin.

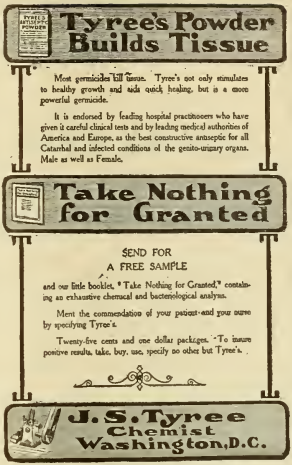
A New Method of Sphincteric Control after Colostomy.—Ryall, in The Edinburgh Medical Journal, describes his method thus: The rectus is split vertically and the sigmoid is drawn out and divided at a convenient point. The lower segment is closed and replaced in the abdomen. The upper segment is made less bulky by removing the appendices epiploicæ and freeing it of mesenteric fat, but without in any way interfering with its blood supply. The artificial sphincter is then made in the following manner: A loop of muscle fibres is separated from the posterior aspect of the rectus on either side of the wound. Each loop is then drawn over to the opposite side of the wound, so that one loop overlaps the other. The overlapping loops thus form a ring and through this the bowel segment is drawn. Sutures are then inserted to keep the muscle fibers together above and below where the bowel comes through. Anchoring stitches are inserted through the skin and muscle inside to keep the bowel in position. The wound is then closed above and below the bowel and the cut edges of the latter are sutured to the skin. A double sphincter is thus formed consisting of longitudinal and circular fibres. The longitudinal fibres are those of the anterior portion of the rectus and the circular fibres are formed by the loops from the posterior pa

of the rectus. This operation can be modified by making double loops on each side and making them overlap one another alternately. A similar operation can be, and has been, carried through the external oblique, and likewise can be done wherever the bowel is brought through muscle. A somewhat similar operation can also be performed for gastrostomy and appendicostomy.

Urinary Bacterial Infections in Childhood.—Box, in The London Medical Lancet, discusses descending and ascending urinary affections in childood. Box believes that the common cause of bacilluria is due to an ascending iufection, a view which is corroborated by the sex incidence of the disease. It is twice as common in females as in males. The commonest infection is that of the colon bacillus. This bacillus is frequently present in the urine of children suffering from thread worms, which suggests that scratching may be in part the medium of infection. The clinical manifestations of infection of the urinary passages in childhood may be pyelitis, cystitis or incontinence of urine without obtrusive evidence of local inflammation. The possibility of the presence of pyelitis should always be borne in mind when dealing with cases of obscure fever in childhood, whether of a sustained remittent, or of a relapsing character. Cystitis of a more or less acute character is not at all uncommon in childhood. In incontinence the course of the disease appears to be not aitogether afebrile. Slight elevation of temperature at night, rarely over 100° F., may occur for weeks at a time. The cystitis of childhood, when caused by the colon bacillus, calls for a guarded prognosis. Some cases, especially those with acute onset and marked bladder symptoms, clear up under the simplest medicinal and dietetic treatment.

Schlatter's Disease; or, "Rugby Knee."—Thompson (Edinburgh Medjcal Journal) mentions a case of this not uncommon but frequently unrecognized condition, which used to be known as "Rugby Knee," and was a bar to taking part in military drill because of the inability to kneel. He quotes James Paget's description of the symptomatology of this condition, which is as follows: "Much more common are the enlargements of the tubercle of the tibia, which are often seen in young people given to athletic games. They complain of aching pain at and about the part, especially during and after active exercise, and the tubercle may be felt enlarged, and is often too warm. The pain often continues, more or less for many months, and there may be enlargement of the bursa under the ligamentum patellæ, and the tubercle may remain too prominent: but, common as are these cases, especially in our public schools, I have never known grave mischief ensue in any of them, and they will get well of themselvesr They may represent one of the least degrees of periostitis due to strain; the increase of the prominence of the bone is only just beyond that which may be deemed the normal limit for the attachment of vigorous muscles."

The writer reports a case in a school boy fifteen years old, who had been conscious for three or four years of sensitiveness at the upper end of the skin bones of each leg. This sensitiveness was felt only on forceful extension of the leg, as in kicking, when anything came against the shin, or on kneeling when the pain was very severe. The case had been diagnosed rheumatism, possible tuberculosis, and housemaid's knee. He had had for treatment, a course of massage, painting with iodin, and electricity. Two years before the knee had been radiographed.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No treatment availed. The parents were apparently anxious for the young lad to take part in foot-ball and continued in their efforts to find out the cause of the trouble, which objectively produced a decided swelling at the top of the shin bones.

Examination disclosed, a little above the tubercle of each tibia, a rounded projection, most marked when the knee was flexed. Radiographs accompanying the report show the condition clearly.

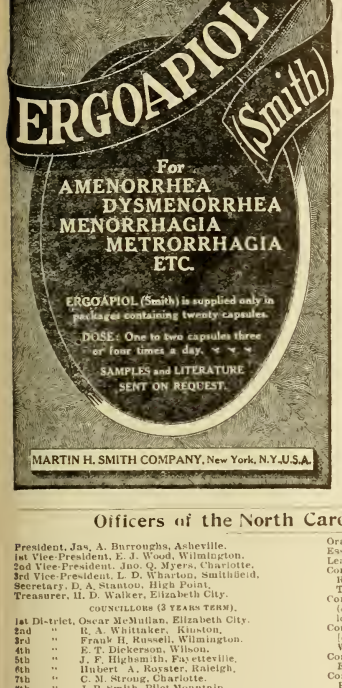
Tuberculosis of the Hip-Joint.—Walderstrom (Ctrlblt. fur Chirurgic) treated 60 cases of tuberculosis in and around the hip-joint. In 18 of these cases the X-ray examination showed the presence of an isolated focus in the femoral neck, within the region of the capsule. Based upon careful X-ray examinations, the author believes the coxitis in these 18 cases to have originated from these isolated foci in the femoral neck. In three cases only did the patient come under treatment before the focus had gone on to coxitis or destruction of the femoral head. Two of the patients were entirely cured by operation, and one recovered with a slight coxa vara and good function. Among the remaining cases 10 patients could certainly have been freed from the tuberculous disease in the same manner if they had come under treatment at an early stage. He points out the importance of evacuating every known focus in the femoral neck without damaging the joint, for the following reasons: (1) There is no method to ascertain within a short time whether the tuberculosis is stationary or progressive in character. (2) The focus in the femoral neck is situated so as to have only a short distance to travel before reaching the joint when progressing in any direction but toward the trochanter major, (3) After the focus has penetrated into the joint very extensive destruction follows.

It is essential to save as much bone material as possible at the time of the operation. The author therefore makes use of Rydygier's incision, with temporary detachment of the trochanter major. The focus is then located and carefully removed, under very accurate aseptic precautions. The operation is terminated by reattachment of the trochanter after injection of iodoform glycerin and primary suture.

The same method is utilized by the author for foci in the femoral neck, with otherwise purely synovial tuberculosis of the hip-joint. Iodoform glycerin injections are made into the hip-foint during the operation. The after treatment is carried out with the assistance of plaster bandages of extension dressings.

Spontaneous Infantile Myxedema.—Beudry (Jour. de Med. et de Chir.) believes that the cause of the myxedematous symptomsas the atrophy or absence of the thyroid gland in infants either congenital or acquired When beginning at a period after birth its cause may be a congenital smallness and consequent insufficiency of the gland. When there are too great demands for the typhoid secretion, which will occur sooner or later, the symptoms of myxedema come on. Either the thyroid elaborates a substance useful to the organism, the absence of which causes the symptoms, or the office of the gland is to remove from the circulation substances that are deleterious, which are not removed when atrophy has occurred. At whatever period of the child's life this insufficiency occurs, the development of mind and the growth of the skeleton immediately cease. The patient becomes an idiotic dwarf—an entire idiot when the suppression of function is early, an imbecile when it occurs later. As the thyroid plays so important a role in the genital system of the female, there are more myxedematous females than males. The dwarf is afflicted with a solid edema of the skin and mucous membranes, which gives him an expressionless, swolen face, a thick tongue, and hoarse voice. The patient shows a great disinclination for all kinds of movements, is cold on account of the lowered temperature, has a feeble and comprshensible pulse, and an open fontanelle. Puberty never becomes established. The only successful remedy is the use of thyroid extract.

Treatment of Labor in Contracted Pelvis.—Schauta (Jour. Obst., Gyn. Brit. Emp.) states that our aim should be to leave labor in contracted pelvis as long as possible to the natural forces, and these failing, to perform only those operations which will most likely save both mother and child. The management of labor in contracted pelvis will shape itself in the following manner, provided it is carried out from the commencement in a skillful manner and in an institution under strict asepsis. In cases with a conjugate above 8 cm. there is a possibility of spontaneous birth, and therefore expectant treatment is to be adopted. In cases under 8 cm. Cesarean section is to be kept in view. In cases bordering on the above, that is with a conjugate of 8½ to 7½ cm. hebosteotomy is to be considered. This operation, in a conjugate of 8 to 8½ cm.; would be an alternative operation to spontaneous birth; in a conjugate of 7½ to 8½ cm., an alternative to Cesarean section. The choice would be determined by the size and hardness of head, the strength of labor pains, the voluntary efforts and general condition of the patient. This method of treatment should be looked upon in the future as typical. All other methods hith-



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erto used in the treatment of labor in contracted pelvis should be looked upon as atypical. Craniotomy on the dead child may be indicated in a conjugate under 9½ cm. Craniotomy on the living child may become necessary if the mother is in a state of infection or refuses to undergo any of the typical operations. Artificial induction of premature labor may also have to be performed in cases in which the mother is suffering from illness and Cesarean section or hebosteotomy at the normal term would be too dangerous, or where it is positively known that the children are abnormally large or the mother absolutely refuses an operation. The application of forceps above the brim and prophylactic turning should, if possible, be entirely removed from the list of methods of treatment in contracted pelvis. The application of forceps above the brim might exceptionally be tried before craniotomy on the living child is resorted to, and it will probably be possible occasionally to save a child. Before craniotomy on the living child is undertaken, prophylactic turning may be justified in certain degrees of contraction in a simply flat pelvis, when Cesarean section of hebosteotomy, on account of illness of the mother, is out of the question, and a trial with the forceps affords little hope of success on account of the high position and mobility of the head. Forceps above the brim and prophylactic turning we find their indication in such atypical cases as a last attempt to save the life of the child before craniotomy is resorted to—forceps when the head is fixed, turning when it is movable. In a conjugate under 6½ cm., Cesarean section is absolutely indicated: if the case be aseptic, with suture of the uterus; if septic, with total extirpation or supravaginal hysterectomy.

Typhoid Fever in Children.—Marfan (Jour. de Med. et de Chir.) describes typhoid fever as it occurs in children. It is more infrequent in children than in adults, and is rarely seen before the fifth year. The youngest patient attacked by typhoid seen by the author was nine months old. The general methods of infection in infants are by milk diluted with impure water, the use of unsterilized milk, and the washing of milk containers in bad water. A wet-nurse may give the fever to her nursling. At birth a child may bring with it into the world the germ which has attacked the mother during pregnancy. The onset of the disease is more sudden than in the adult and it reaches its acme sooner. From the second day the temperature is very high. Diarrhea is absent, and constipation the rule. There is an exaggerated hypothermia and very few digestive troubles, anorexia and the typical tongue being absent. The stools are infrequent and of an ochre color. Meteorism and abdominal pain are generally absent. Hemorrhages and perforation of ulcers are very exceptional. The Peyer's patches are not much swollen or deeply ulcerated. There is rather a septicemia than a true typhoid condition. Rose-spots are not always present, one-third of the cases never showing them. Sometimes they appear earlier and are more abundant than in the adult. Relapses are more frequent than in the adult, and the rose-spots return with the fever. There is generally a desquamation which is distinguishable from that of scarlet fever only by the absence of the large plaques of skin that appear in the latter disease. There are two distinct forms of typhoid fever; a very slight one, of short duration, and a severe form, more curable than in adults. The causes of the less severity are perhaps the good digestion the development of the lymphatic system, and the general good condition of heart, kidneys, and liver. Frequent complications are meningitis, paralysis, and otitis.

Pneumococcus Vaccines in the Treatment of Pneumonia and of Some of Its Complications.—Harris in The British Medical Journal states that, clinically, death in this disease usually comes from cardiac failure, especially in those virulent cases terminating about the fourth day of the attack. Under these conditions the vaccine treatment in many instances will indeed reduce the fever but fails to avert a fatal result. The toxemia already induced is too profound for merely the arrest of the infecting process to be successful. Hence the vaccines should be used at the earliest possible moment and be accompanied by the use of a antitoxin. It is not improbable that in the case of the pneumococcus the success of a vaccine is due not simply to the fact that it should be autogenous, but the fact of a vaccine being autogenous narrows down the issue to (1) the right organism being selected, and (2) the vaccine being prepared, if not unduly subcultured, from an organism of requisite virulence. Fraenkel's pneumococcus is, however, as far as we know, invariable; it is not like the streptococcus (Gordon) an inclusive term for several varieties. On the other hand, we know from the staphylococcus and colon bacillus that these may be so subcultured as to lose their original virulence, and that vaccines so prepared are of little use, therapeutically. If, then, a potent and reliable stock pneumococcus vaccine is to be obtained, it should be make from as virulent a strain as possible. There is unhappily no difficulty in the early months of the year in obtaining as much as is wanted. The truth

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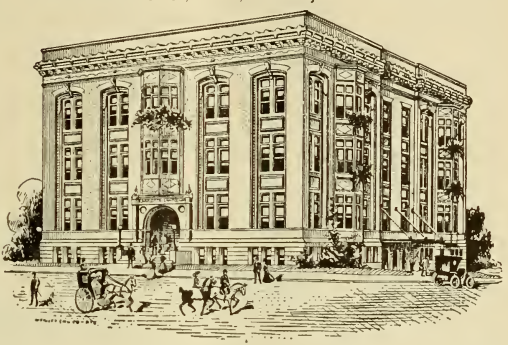

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of this argument can only be verified by a great number of observations. With regard to the treatment of acute pneumonia by inoculation, the practical conclusions which alone can interest the busy clinican are: (1) that successful inoculation for pneumonia is possible; (2) that inoculation does no harm; (3) that a vaccine from one or a number of virulent strains should be used; (4) that it should be introduced as early as possible; (5) that the estimation of the opsonic index is not necessary; (6) that the observation of the temperature and physical signs is in pneumonia a sufficient guide in gauging the repetition of the dose. Infections of the lung by the pneumococcus which fail to resolve after an acute pneumonia, as well as pneumococcic infections of other areas, ought certainly to be treated with a pneumococcic vaccine; and these cases appear to afford a reasonable prospect of success.

Feeding in Measles and Scarlatina.—Nobeecurt and Pr. Merklen (Gaz. des Hop.) mention the general employment of a milk diet in measles and in the first weeks of scarlatina, this has been found useful in preventing kidney troubles from becoming serious in the latter disease. The authors seek in the examination of the urinary excretion a scientific confirmation of the practical results. To this end they have tested the urine and studied the changes in body weight on a milk diet, on a general diet, and on a diet rich in sodium chloride. In scarlatina it is with the milk diet maintained from the urinary elimination is most regular. With other diets the elimination of urea and that of chlorides present more or less marked oscillatiuns. With ingestion of salt there is sometimes noted a retention of chlorides. With milk alone albuminuria is least frequent. The weight in scarlatina varies and diminishes no matter what diet is used. For all these reasons the milk diet is to be preferred to other methods of feeding. and it should be continued for three weeks. It should be adhered to absolutely during the febrile stage; later it may be varied by milk, soups and vegetable gruels. After the third week the diet should be increased in variety, some meat being given and purees of patatoes, peas, and lentils, and cooked fruits. The urine should be carefully examined for albumin during the whole time. In measles the elimination of urea is the same whether milk or barley water is taken. There is no justifieation for giving albuminoids in the early period of the disease, since the appetite is poor and vomiting often occurs. Four or five grains of salt may be given every twenty-four hours. After the fever has fallen it is best to feed the child more in order to prevent loss of weight.

Miscellaneous.

Typhoid Fever and Malaria in Jacksonville.

The Half Million Club of Jacksonville, Florida, has issued a circular calling attention to the sanitary condition of the city. This quotes the United States Census Office mortality statistics as saying Jacksonville ranks third "among the very large number of municipalities in which typhoid fever is contiuuously, or nearly continuously, prevalent with high mortality." The typhoid death rate is given as 155, per 100,000 of population. Jacksonville is also placed second in the list of highest death rates from malaria among the minor cities, with a rate of 78. In a list of total death rates the name of Jacksonville appears at the top with a rate of 28 per 1,000. The circular then states that "every resident should demand of the public authorities that every swamp, marsh, and creek of Greater Jacksonville be placed under one Health Board, and that long time bonds be issued for all sanitary improvements necessary to reduce the high death rate to the average of civilized communities."

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Treatment of Asthma.

Doctor Treupel regards asthma as a special form of neurasthenia, and believes that it can be effectually cured by impressing the fact of its curability on the patient and obtaining his co-operation. The main point is to influence and control the dread of suffocation and to regulate the breathing. The latter is accomplished by various exercises, training the patient to breathe deep, with a slow inspiration, at the same time raising the arms over the head and then, during expiration, applying the hands to the front and sides of the chest, squeezing the walls together to aid in expelling the last traces of air. These exercises, or their equivalents, should be repeated once or twice a day for fifteen minutes. Electric light sweat baths and potassium or sodium iodide have proved very useful in his experience when applied during the intervals between attacks. Sedatives may be useful in the acute attack, but should be used only in emergencies. Exercises and hydrotherapy, with a transient change to a more favorable climate, the seashore or mountains, are important adjuvants. He adds that the treatment of bronchiaj asthma is a grateful, but by no means an easy task; success requires much skill, a determined will and perseverance.—Deutsche Medizinische Wochenschrift.

Carrot Soup for Infants.

For infants suffering from acute or chronic intestinal disturbances, E. Moro highly recommends a soup prepared as follows- Five hundred grams carrots are peeled, mashed and boiled out with water, until 375 grams remain behind. The mass is then rubbed through a very fine sieve and added together with 6 gm. of salt to 1 liter of broth. This soup was given to infants from two weeks to six months old, with the best results. In acute cases, the vomiting and diarrhea will cease in from one to three days and the fever and general symptoms of marasmus will rapidly disappear. In the chronic affection and in infants suffering from atrophy, the result is no less prompt, and a rapid gain in weight can be noted. The stools are soft, very copious, and yellow or reddish-yellow. One of the most pronounced results following feeding with carrot soup is retention of water within the system of the infant.—Muench. Med. Woch.

Treatment of Infantile Eczema.

The true chronic eczema of the infant is probably a constitutional disturbance, and the presence of staphylococci is due to secondary infection. Two factors can be recognized, according to E. Feer, a congenital disposition and improper feeding. Two varieties of eczema can be seen: The weeping form of fat children, with pasty complexion, which forms thick crusts and is usually accompanied by constipation, and the disseminating, dry type, which causes intense itching and runs a chronic course. Combinations of both types are common.

The treatment of infantile eczema is difficult, so that many physicians prefer to wait for a spontaneous cure, particularly as fever, convulsions, and even death have been known to occur. This is usually due to the presence of a well-defined status lymphaticus, though sudden death may also be the result of a staphylococcus sepsis.

External treatment is secondary in importance to the internal. The crusts are best removed slowly by applying dressings of oil or vaselin. If there is much weeping, moist applications of very dilute aluminum acetate will combat the inflammation. Zinc paste is then used, and the parts are kept covered, so that the child cannot scratch. The following additions may be

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necessary: 5 to 10 per cent. naftalan, where there is delayed healing; 1 to 3 per cent. tumenol, if the itching is intense; 1 to 5 per cent. lenigallol, for pronounced weeping; 2 to 5 per cent. sulphur, for the seborrhoic type; ½ to 2 per cent. salicylic acid, for the dry and infiltrated form, etc. In very dry, obstinate types, the addition of 0 1 to 1 per cent. of oleum rusci or oleum cadini will be serviceable, with small doses of Fowler's solution internally, while the disseminated form is often benefited by sulphur baths.

The most important change to be made in feeding is reduction of milk. Breast-fed infants should receive only five feedings, and gruels may be added to the diet after the third month. In artificially fed children the amount of milk is reduced ¼ to ½ liter. If no improvement is noticed in from one to two weeks, the milk is cut down still more, and the carbohydrates (gruels, sugar) are increased. There may be a loss of weight, amounting to from 5 to 10 per cent. After the fourth month cereal decoctions may be used more freely, and the juice of fresh raw fruits in teaspoonful doses is indisated. In the second half year, finely mashed, stewed or raw fruit, potato, and green vegetables can be given. In very obstinate cases it may be necessary to withhold milk altogether for a few weeks, if the child is over six mouths old. Skimmed or buttermilk is usually better than full milk. In the second year the diet consists chiefly of vegetables and fruits, with 1-4 to 1-5 liter of milk. Meat can usually be added by the third or fourth year, but eggs and broths must be carefully avoided.

Much greater difficulty is experienced where the infants are already underfed, but the general principles are the same.

Recently a milk has been recommended from which most of the salts of the whey have been removed, but the author has obtained results with it no better than those with the above line of treatment. It seems that neither the excess of salts nor of fat alone, but of both together, is the chief cause of infantile eczema.—Muench. med. Woch.

Treatment of Diabetes.

Formerly our object in the treatment of diabetes was to render the urine free from sugar; at present, the same end is attained, but the patient is then allowed as much carbohydrate as he will tolerate. According to G. Rosenfeld, it is much better to diminish the carbohydrates in the diet slowly than rapidly. Very often the patient is able to oxidize more carbohydrate while he has a fair percentage of sugar than while he is aglycosuric. A moderate percentage of sugar is, therefore, not objectionable, provided a larger amount of carbohydrate is utilized. As a rule, the amount of bread should not be reduced below 60 Gm. Exceptions are where patients suffer from neuralgia or other complications, as the symptoms generally disappear more rapidly if no sugar is excreted. A stricter diet should also be enforced in very recent cases, in the hope that the process may be cured.

Where an operation is contemplated, it is also desirable to have as little sugar in the urine as possible, though even large wounds may heal with moderate glycosuria. In more serious cases of diabetes, the fats are also imperfectly oxidized, leading to fatty degeneration, lipemia, and the excretion of acetone. In such cases, the decomposition products of sugars, such as carbohydrate acids, glyconic acid, saccharic, and mucinic acids or glycosamin, can be administered with good results, or the sugar may be given per rectum. Little benefit will result from the administratien of levulose or lactose.

The best results are obtained from oatmeal, which will reduce the amount of sugar and acetone, often to a remarkable degree. What this action is due to is at present not known.—Berl. klin. Woch.

The Sign of "Tapotage" in Pulmonary Phthisis.

In 1904 Erni described a symptom which frequently exists in pulmonary tuberculosis. In certain cases percussion—above all in the subclavicular region—will excite immediate cough and expectoration. Molle (Lyon Med., February 7, 1909) has observed this sign of tapotage in several cases, and disagrees with Erni's opinion that the sign is distinctive of a subjacent pulmonary cavity. He found it in one case of early tuberculous infiltration in which cavitation was extremely improbable, and was not shown by any other sign. On the other hand, "tapotage" is frequently absent where a cavity undoubtedly exists. Nevertheless, the sin is by no means without diagnostic value. Molle has found that it is associated with the neuro-muscular hemiparesis, such as Weil and Jacquet have described in pulmonary tuberculosis; it presents the same characteristic variability and inconstancy, and is due to a hyperæsthesia of the subjacent pulmonary parenchyma, the area of which is the same as the area of hyperæsthesia of the relatively superficial structures such as the muscles and nerves. The cough is, then, reflex rather than of mechanical causation.—British Medical Journal.

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Correspondence with physicians solicited.

Treatment of Empyema of the Nasal Sinuses.

Mortens describes a suction apparatus of his own construction, which he claims is of great aid in the diagnosis of suppuration of the ethmoidal cells and the sphenoidal and frontal sinuses. This apparatus is especially valuable in diagnosing suppuration of the ethmoidal cells. The apparatus consists of a suction pump to which a muck nasal tip is attached by means of hose with a vankumeter intervening to register the suction power. Suction being continuous.

With the apparatus in motion and 10 to 15 cm. mercury pressure registered, the muck tip is placed into one of the nostrils of the patient. The patient is then instructed to repeat the word "Tik" to bring about the shutting off of the naso from the oral pharynx. The patient's other nostril is then closed by applying pressure with the finger. The lateral opening of the nasal tip is closed with the physician's finger, thus suction is brought about in the nasal cavity. Fifteen to twenty-five centimeters applied for three to five minutes suffices usually to draw pus from the sinuses into the nasal cavity, when it exists. If applying suction pus appears in the nose previously free from purulent discharge, the diagnosis of empyema is made. Not only is this method valuable for diagnosis, but also for therapeutics. Ridding the cells of pus frees the mucous membrane and favors restoration. The suction applied causes hyperæmia of the tissues, which, according to the Bier theory, tends to healing.—Deutsche Med. Woch.

Adrenalin: Its Action on the Skin.

Sardou discusses the remarkable benefits to be derived from painting the skin with adrenalin. His results are based upon the results obtained in 54 cases during the last six years. Among the conditions treated were toxic erythemas, urticaria, acne, sunburn, bee sting, eczema, pruritus, nevus, contusion, inflamed chilblains, headache, and congestion of the face from indigestion, sciatica without neuritis, arthralgia, arthritis, varices, etc. The adrenalin applied to the skin is rapidly absorbed and acts on the vessels in the region. Durable vasoconstriction is obtained by a moderate, graduated application of the adrenalin, renewed according to the effects produced. Too large a dose, at first, paralyzes the reaction. Hæmorrhoids are benefited when moderate nnd recent, unless they are the result of portal hypertension. The measure may also fail on account of sclerosis and paresis of the walls of the vessels. The effects of the adrenalin are similar to those of constriction hyperæmia. When applied locally it re-enforces the local defenses without waiting for general reactions, the outcome of which it is impossible to foresee. The adrenalin is able to act in the depths of the tissues and to aid their defensive efforts, or the adrenalin may arouse them to more effective resistance.—Annales generales de Medecine.

Hydrocephalus, Chronic Idiopathic Internal, Cured by Drainage of the Ventricle.

Halben states that all the main symptoms have retrogressed since the operation done by Payr last October. The patient was a girl of sixteen; Payr introduced into the right lateral ventricle a piece of an artery about 2 millimeters in diameter taken from a calf. The artery had been hardened in formalin and dipped in paraffin, and was fastened to allow communication between the ventricle and the epidural and subdural space at the top of the head. The headaches, choked disc, nystagmus, abducent paralysis and tremor all vanished once or by the end of a month, and vision, which had been 1-2 on each side, was 4-5 and 5-5 when the patient was discharged two weeks after the operation. Slight headache at times is the only trace left of the former trouble, except that the papilla looks a little dirty. The patient had always suffered more or less from headache, but the other symptoms first developed about five months before the operation. —Deutsche medizinische Wochenschrift.

Hypertrophy of the Lymphoid Tissues of the Pharynx and Its Relation to Tuberculosis.

P. Nobecourt and Leon Tixier have examined twenty-two children from thirty-one months to four years of age, all of whom had large adenoids and enlarged tonsils, but none of whom had pulmonary tuberculosis. They sought for appreciable tuberculous lesions and used tests for the presence of tuberculosis; the subcutaneous method, ophthalmic reaction and skin reaction were used as tests. A table of the results is appended. Bacteriological and histological examinations of the tissues removed were made. Of the children thirteen had no sign of tuberculosis; six had doubtful signs, three were considered clinically tuberculous, and two were clinically doubtful. The skin reaction was positive twelve times; the ophthalmic reaction was positive four times; only five infants out of the twenty-two could be considered free from tuberculosis, and yet almost all enjoyed excellent health. The portions of tissues removed and examined never showed tuberculous foci. The authors conclude that tuberculosis of the tonsils and adenoid tissues of the pharynx is rare. In these children who were openly tuberculous the inoculation of guinea pigs with the tonsilla tissue never produced tuberculosis. The lymphoid tissues did not serve in these cases as the door of entry for the bacillus tuberculosis —Gazette des Hopitaux.

Pulmonary Emphysema and Fatty Degeneration of the Diaphragm In Diphtheritic Intoxication.

G. Mya has observed in children who were subject to severe diphtheritic intoxication a condition of emphysema of the lungs, which may go so far as rupture of the vesicles of the lungs and subpleural, and even subcutaneous emphysema. The type of case in which this is seen is that in which there is a necrotic angina with great enlargement of the glands of the neck, myocarditis, albuminuria, cutaneous hemorrhages, and muscular asthenia. Such cases generally result fatally. In life the area of resonance of the lungs extends down to the seventh rib in front and the twelfth behind, and the vesicular murmur is enfeebled, while inspiration is short and superficial. In these cases there is no laryngeal stenosis, and hence the condition cannot be referred to the extra effort required for respiration. At autopsy the clinical evidences are confirmed by finding the macroscopic and microscopic characteristics of emphysema. In these cases there is also found a fatty degeneration of the muscular fibers of the diaphragm, which aids the lack of elasticity of the lungs, due to deficient power of the elastic fibers in producing the emphysema.—Rivista Di Clinica Pediatrica.

Graduated Rest in Pulmonary Tuberculosis.

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sign of invasion by tuberculosis must be treated with the utmost rigidity. Rectal temperatures should be taken while the patient is in bed and so long as there is any fever, bed rest must be maintained. Such cases should not be put out on verandas in long chairs. Absolute silence must be maintained when, during rest in bed, the temperature rises over 100.4 degrees at any time of the day. If this limit is not exceeded, the patient may visit the lavatory and perform the usual duties of the toilet. The morning temperature should be taken before breakfast, and it should fall at least as low as 97.8 before the patient is allowed to get up. Cases commencing with an initial hæmoptysis are, as a class, the cases which exhibit the least fever, and consequently require the least rest, but all require some rest in bed at the commencement of the bleeding. Later such patients may be allowed to exercise cautiously. Early resting prevents acute and incipient cases from becoming chronics. Patients who manifest at the outset the most violent constitutional symptoms, if they eventually survive, ultimately make the most perfect recoveries. All these suggestions apply to laryngeal lesions with double force. The cough should be controlled with opium derivates, and absolute silence must be maintained for a period of even mouths. So soon as the temperature falls, laryngeal patients may be allowed to exercise.—E. E. Prest in The London Lancet.

State Board Examination Questions of West Virginia, 1909.

ANATOMY AND EMBRYOLOGY.

1. Give the character of a vertebra.
2. Describe the skin and its appendages.
3. Hip joint: Describe it, naming variety, giving bones and ligments.
4. Name the regions of the abdomen and give contents of any two.
5. Describe the brachial artery and name its branches.
6. Describe the inguinal canal. Wherein does an artery differ from a vein?
7. Give origin and insertion of triceps muscle.
8. Describe the gall-bladder and bile-ducts.
9. How many bones in the human skeleton? Classify them.
10. Describe the blastoderm.

PHYSIOLOGY AND HISTOLOGY.

1. Describe the principal phenomenon that occurs when a muscle is physiologically active.
2. State with what principal functions pulmonary endothelium is endowed, and describe the origin and character of the blood which an alveolus utilizes during the physiological action.
3. Give the source and state the character of the blood supplying hepatic parenchymatons cells, and describe the two principal functions they possess.
4. State the effects of battery currents on the normal human nerves.
5. Give the process of regeneration of uterine mucous membrane following pregnancy.
6. Describe the physiological aspect of atavism.
7. Account for the contraction and dilatation of the pupil.
8. Name the circumstances influencing secretion.
9. What are structural elements? What is a typical cell?
10. Give the elements of the nervous system; the connective tissue.

CHEMISTRY.

1. Give tests for urea and acid, give chemical differentiation.
2. Test urine for albumin, sugar, indican, and phosphates.
3. Name antidote for phenol and treat case of poisoning.
4. Make tests differentiating the alkaloids, morphine sulphate and quinine sulphate.
5. Define medical jurisprudence.
6. Give symptoms of lead poisoning and treatment.
7. Wdat are ptomains, and in what found? Give symptoms and treatment of ptomain poisoning.
8. What is hard water? How does it become hard? Give two ways of softening it.

What are the antidotes of bichloride of mercury? Give treatment for poisoning therefrom.

10. What is H_2O, H_2O_2, NaCl, H_2SO_4?

MATERIA MEDICA AND THERAPEUTICS.

1. Give origin and uses of carbolic acid.
2. Cinchona: Where found, chief alkaloids, uses, and dose.
3. Apomorphine: How obtained, use, dose.
4. Abstracts, extracts, infusions, tinctures, mixtures; define each.
5. What are hypnotics? Name three most important ones, doses, and indications.
6. What is the temperature of tepid bath, warm bath, and hot bath; indications for each.
7. Emmenagogues: When and how to be used; name three, with doses.
8. Name five mineral astringents; give dose of each.
9. Sweet spirits of nitre, Hoffmann's anodyne: indications and dose of each.
10. Prepare and administer a purgative high rectal enema.

PRACTICE OF MEDICINE AND PEDIATRICS.

1. Dysentery: Etiology, complications and sequelæ, and treatment.
2. Rheumatism: Give the different forms; treat each.
3. Tonsillitis: Differentiate from diphtheria; symptoms and treatment.
4. Give etiology and treatment of hemoptysis.
5. Intussusception: Define, diagnose, and treat.
6. Cirrhosis: Etiology, symptoms, and treatment.
7. Ascites: General causes, symptoms, and treatment.
8. Intestinal catarrh of children: Symptoms and treatment,
9. Describe the lumbricoides and give origin, symptoms, and treatment.
10. What diseases does meningitis complicate in children?

OBSTETRICS AND GYNECOLOGY.

1. Differentiate pregnancy from three possible ailments that simulate it.
2. What occasions vomiting of pregnancy? When is it pernicious, and what is remedy?
3. What preliminary knowledge of the patient should the accoucheur have?
4. Describe the possible hemorrhages of pregnancy and your method of checking them.
5. How long would you work with the newborn to bring about respiration, and with what methods?
6. Fully describe the third stage of labor, giving methods and danger of delay in delivery.
7. Milk leg: Why so called, cause, and treatment?
8. When is curettage indicated? Give your way of doing it.
9. Give nosology, symptoms, and treatment of menorrhagia.
10. Nosology, symptoms, and treatment of vaginismus.

SURGERY.

1. What is suppuration? Give causes and symptoms.

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2. Describe Syme's operation for amputation at the ankle.
3. Give the indications for reopening wounds.
4. Give the differential diagnosis of hydrothorax and empyema.
5. Give in detail the treatment of a oompound fracture of the tibia.
6. What are the clinical symptoms and what is the surgical treatment of a purulent effusion into the knee joint?
7. Name the different kinds of fractures, and give differential diagnosis between fracture of neck of femur and dislocation of the hip joint.
8. Give in detail treatment of a punctured wound involving the deep palmar arch.
9. Give causes, symptoms, and treatment of osteomyelitis.
10. Give causes, symptoms, and treatment of phlebitis.

SPECIAL PRACTICE.

1. Give diagnosis of ulcer of stomach.
2. What is amebic dysentery?
3. Describe and treat adenoids.
4. What would you suspect from continued hoarseness?
5. Describe enucleation.
6. Define, describe, and treat cataract.
7. Diagnose impacted cerumen and treat.
8. Test the hearing. What is the most common cause os deafness.
9. Describe locomotor ataxia.
10. Describe paresis.

BACTERIOLOGY AND HYGIENE.

1. What is the difference between parasites and saprophytes?
2. What is the bacterium concerned in septicemia? How does it enter the body?
3. Describe the bacteria found in pneumonia. How are they transmitted?
4. Give a minute description of disinfecting the hands and instruments before performing an operation.
5. What group of bacteria are most resisting to disinfectants? Why?
6. What hygienic principles should be applied to our public schools?
7. Can tuberculosis be prevented? If so, how?
8. How would you prevent the spread of diphtheria and scarlet fever?
9. Give sanitary treatment of the puerperal state.
10. Disinfect a house after the recovery of a case of diphtheria. Give details.

Board of Medical Examiners, State of Georgia—Examination Questions.

ANATOMY.

1. Name articulations of occipital bone.
2. With what bones does the clavicle articulate?
3. What bones make up the pelvis?
4. Name bones of tarsus.
5. What muscles form quadriceps extensor, and where is its conjoined tendon inserted?
6. What muscles comprise pectoral group?
7. Give origin and insertion of pectoralis major muscle.
8. What blood-vessels pass to and from liver?
9. Name branches of external carotid artery.
10. Name branch of femoral artery.
11. How is circle of Willis formed?
12. In anatomy of brain what is corpus callosum?
13. Give origin and exit of pneumogastric nerve.
14. Give origin and exit of trifacial nerve.
15. What is contained in middle mediastinum?
16. Name subdivisions of alimentary canal.
17. Where in the topography of the abdomen is the sigmoid flexure? The appendix?
18. Into what and how far from the pyloric orifice of the stomach does the ductus comunis choledochus open?

PHYSIOLOGY.

1. What four elements do all quaternary principles contain? Practically into what must albuminoids be changed before absorption?
2. Name the intestinal glands. Tell where each variety is situated, What do they secrete and name the ferments.
3. Describe the renal circulation.
4. Give the chemistry of respiration.
5. Give origin and function of the hypoglossal nerve.

CHEMISTRY.

1. Give tests by which mercuric compounds can be distinguished from mercurous compounds.
2. Give the chemical and pharmaceutical names and formulas of two preparations of sodium.
3. What are leucomains? Antitoxins?
4. Give a chemical and physiological antidote for morphine. Explain action of each.
5. What is the normal reaction of pancreatic juice, and to what is it due? Of gastric juice? To what is it due?

MATERIA MEDICA AND THERAPEUTICS.

1. Give classification of medicines with definition, and example of each group in their alphabetical order.
2. Veratrum viride: Preparations, physiological action, therapy.
3. Gelsemium: Preparations, physiological action, therapy.
4. Opium: Preparations, its six principal alkaloids; official preparations of morphine; treatment of acute poisoning.
5. Salol: Definition, physiological action, therapy.

PATHOLOGY.

1. Describe the pathological changes in the three stages of acute lobar pneumonitis.
2. What pathological changes occur in the air-cells during pulmonary hepatization?
3. Give the morbid anatomy in acute yellow atrophy of the liver.
4 (*a*) What is productive inflammation?

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(*b*) What is suppurative inflammation?

5. Describe fatty degeneration as distinguished from fatty infiltration of tissue.

PRACTICE OF MEDICINE.

1. Acute articular rheumatism: Definition, etiology, morbid anatomy, symptoms, complications, diagnosis, treatment.

2. Cholera asiatica: Definition, etiology, morbid anatomy, symptoms, complications and sequelæ, diagnosis, prophylaxis, treatment.

3. Dysentery: Definition, etiology, clinical forms, anatomy of each form, diagnosis, treatment.

4. Hydrophobia: Definition, pathology, symptoms, diagnosis, prognosis, treatment.

5. Uncinariasis: Definition, etiology, pathology, diagnosis, treatment.

OBSTETRICS.

1. What attention should be given to the kidneys of pregnant women?

2. What are the symptoms of threatened eclampsia?

3. What are the causes of antepartum hemorrhage? How should they be managed?

4. What is the usual procedure in the delivery of the placenta?

5. How would you manage a breech presentation?

PEEIATRICS.

1. Give etiology, complications, and duration of pertussis.

2. Give treatment of acute adenitis.

3. Define ophthalmia neonatorum and give its treatment.

4. Give synonym and treatment of scabies.

5. Give diagnosis and treatment of bronchopneumonia.

GYNECOLOGY.

1, Define endometritis and give its causes, varieties, and treatment.

2. Give a differential diagnosis between ovaritis and ovaralgia.

3. Give the pathology of (*a*) hydrosalpinx, (*b*) hematosalpinx; give the diagnosis and treatment of each.

4. Is ventrofixation of the uterus justifiable? If so, state under what circumstances, and describe the operation.

5. What is the menopause, and in what manner would you explain the theory that it is a critical period in a woman's life?

SURGERY.

1. Define abscess; aneurysm: With what condition may aneurysm be confounded?

2. Make briefly a diagnosis of coma from injury, apoplexy, uremia, opium poisoning, and alcoholic intoxication.

3. Define peritonitis.

4. State two or more ways in which the peritoneum may be invaded by bacteria.

5. What are the contraindications respectively to the use of the three principal anesthetics—nitrous oxide, ether, chloroform?

6. What is dislocation? Fracture?

7. Give differential diagnosis between fracture and dislocation.

8. Describe Colles' fracture!

9. Outline treatment of same.

10. What is hemorrhage?

11. How would you arrest epistaxis?

12. Describe operation for ligation of sublavian artery in its third portion.

13. What arteries require ligating in amputation, at middle third of leg?

14. Describe complete indirect inguinal hernia.

15. Give symptoms of strangulation, methods of reduction, and operation if strangulation exists.

16. Describe an approved operation for the radical cure of oblique inguinal herni.

Simplified Technic for Radical Cure of Inguinal Hernia.—Murray (British Med. Jour.) says that the chief cause of failure after operation for inguinal hernia is incomplete removal of the sac. The writer further says; "In examining patients in whom hernia has recurred I have been at once impressed by the position of the scar. The skin incision had been made far too low—in fact, it encroached upon the scrotum, and did not extend upwards further than the external abdominal ring. Through such an incision it is impossible to excise the sac completely. The lower end of the skin incision should not extend more than one-half inch below the external abdominal ring. I always open up the inguinal canal for about one and one-half inch, and, having found and isolated the sac, make a point of pulling it vertically upwards, and at the same time brushing back with gauze the other structures clinging to the neck of the sac. I continue to pull the sac upwards and push bank the surrounding structures until I bring into view a marked thickening of the peritoneum. This thickening is to be found on the pubic side. I always look for it, and when it appears know I have reached the limit of the sac. By transfixing and tying the peritoneum through this thickened portion the limits of the sac have been passed, and when it is cut away the ligatured stump at once disappears from view beneath the internal oblique. This thickening of the peritoneum is physiological. It is present during infancy as well as during adult life, and when operating for inguinal hernia should always be looked for, as it is the only true indication that the limits of the sac have been reached. The sac being thus completely removed, I unite the divided aponeurosis of the inguinal

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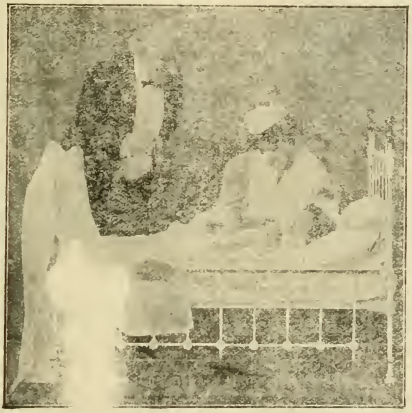

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canal. Formerly, I did this by overlapping, but more recently I have taken a double hold of the aponeurosis on either side with the needle, and so with four or five stitches narrowed and lengthened the inguinal canal. The cord is not interfered with, and, after tying several small bloodvessels, the skin incision is closed. On the seventh day, the subcutaneous wire or silk stitches are removed, and, as a general rule, the patient is allowed to get up on the tenth day, and leaves the hospital on the fourteenth day after the operation, not wearing a truss or support of any kind. He is advised not to return to work until at least two more weeks have elapsed."

Sterilization of Tuberculous Women During Pregnancy.—Martin discusses the effect of pregnancy upon a woman suffering from tuberculosis and considers the advisability of ending the pregnancy and preventing further conception by performing the panhysterectomy on the gravid uterus. He lays down the following rules for the operation: (1) There must be definite physical signs of tuberculosis or the probability of its presence must be made strong by the sudden failure in the patients general condition and loss of weight, following quickly on the beginning of pregnancy. (2) The interruption of pregnancy has no influence if the pulmonary process is far advanced, or the woman is approaching the second half of pregnancy. In such case the procedure is of value only in case of the sudden onset of edema of the larynx or the lungs. (3) Suitable cases for the interruption of pregnancy are those in whom the disease is in an early stage and the pregnancy is in the first third of its course. A valuable aid in determining the suitability of the patient is found in the conjunctival tuberculin reaction. (4) If the interruption of the pregnancy is indicated it should be done under lumbar anesthesia and the simultaneous sterilization and complete extirpation of the gravid uterus should be done.

The Treatment of Nasopharyngeal Catarrh in Children.—Hecht (Therapeut. Monatsch.) observed that very severe convulsive attacks of coughing originate reflexly by way of the nasopharynx affected by the catarrh. During the night especially, with the patient in the recumbent position, the secretion runs down at the posterior surface of the pharynx and determines the reflux at the larynx, This occurrence is especially frequent in measles. The best remedy consists in installations, at first every three hours, then three times daily, of a sozojodal,zinc solution (½ per cent.) into the nose. This treatment is prescribed by the author in measles as soon as a severe coryza makes its appearance. Used prophylactically in this manner, it serves not only to prevent the irritative cough, but guards against the development of middle-ear inflammations.

The Value of Expert Radiography and Cystoscopy in the Detection of Obsolesced Tubercle in the Kidney.—Fenwick in The Glasgow Medical Journal refers to one case, that of a woman in whom radiography demonstrated the presence of rounded renal prominences considered as cysts and full of caseous material like cream cheese. The pelvic space was replaced by fibrous tissue. The ureter was a fibrous cord, The organ was removed and proved to contain such material and to be of the exact size sketched by the author. He was able to make his positive predictions by the use of radiograpy and cystoscopy. The writer knew the patient had tuberculosis somewhere in the urinary tract. Eighteen years ago he had examined her with the cystoscope and found ulceration of the bladder near the right ureter. Later experience has convinced the author that such ulcers signify tuberculous disease of the corresponding kidney. When seen the second time, the cystoscope revealed the cicatrix of the old ureteral ulcer, and it was evident that the uterer was impervious and functionless. The next question was, was the presence of the kidney detrimental? Radiography now determined the presence of the cystic masses above referred to. Catherization of the left kidney showed evidences of cousecutive nephritis induced probably by absorption from the foci in the right kidnev. It was therfore deemed advisable to remove the original source of infection. He says that the kidney is always radiographed for him in two positions: in one the patient takes a deep breath and holds it while the X-ray is switched on; the effort thrusts and keeps a mobile kidney down; for the next plate the patient breathes easily and naturally while the kidney rises and falls easily. If the shadow of the organ corresponds in position in two plates we may know we have a dangerously fixed kidney to deal with. If the shadow had moved, the organ is movable and may be esily dealt wit.

Suits Against American Medical Association.

According to a clipping from one of the Chicago newspapers, "separate suits for $100,000 damages each have been brought in the United States Circuit Court in Chicago, by Dr. S. Lewis Summers, and the Organic Chemical Manufacturing Company, both of this city (Chicago), against the American Medical Association, for alleged

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Superintendent.

misrepresentations about the products of the plaintiff Company in the publication of the Association." The suit, it is declared, "will expose a systematic attempt to give a monopoly to certain German chemical manufacturers, shutting out American producers. One of the features expected to be brought out is how patients are compelled to pay tribute to certain German manufacturers of standard drugs and remedies. If prescrtbed by physicians under their trademark names, which are easily remembered, their cost is three or four times as great as when prescribed under the technical names. As the latter are complicated and hard to remember, few physicians use them, preferring the simpler ones.

"The position of Dr. Summers is stoutly supported by such experts as Professor Samuel P. Sadler, of the College of Pharmacy (who was a member of the Council on Pharmacy and Chemistry of the American Medical Association for three years), and Dr. Henry Beates, Jr., President of the Pennsylvania State Medical Examining Board, who both vigorously oppose the findings of the Council on Pharmacy and Chemistry on the subject."

While we profess to know nothing of the true merits of the case, and cannot commit ourselves to an opinion, it may yet be remarked that in view of certain reckless or hasty judgments by this Council on Pharmacy and Chemistry, we are not surprised that suits have been instituted. We presume, however, that the Association is fully able, financially, to meet the losses, if the sutts should be awarded in favor of the plaintiffs, but it should teach a lesson to the Council, which thus implicates the whole Association, to be more careful in its future publications.

Good Results in Stubborn Cases.

Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies has a peculiarly happy effect. Particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations are wonderfully relieved by the use of this combination, and the painful stiffness of the joints which remains after a rheumatic attack are also relieved by "Antikamnia and Salol Tablets" containing 2½ grs., each of antikamnia and of salol and the dose of which is one or two every two or three hours. Salol ueutralizes the uric acid and clears up the administration of these tablets. This remedy is also reliable in the treatment of diarrhoea, entero colitis, dysentery, etc. In dysentery where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by two antikamnia and salol tablets every three hours will give results that are gratifying.

Poison Oak.

At the solicitation of a fellow physician at St. Bartholomew's Clinic of this city, I was induced to use Tyree's Antiseptic Powder in the case of an indolent ulcer, which had resisted all previous attempts at healing. The rapidity with which this case responded, led me to try it in a wider field, almost everywhere an antiseptic was indicated. Last July I employed the powder in a case of ivy poisoning (a young lady). She had been suffering for over a week, all home "remedies" having failed. I applied locally, as a lotion, a teaspoonful of the powder dissolved in a pint of water and also for dusting the inflamed surface, the powder diluted 1 in 10 with powdered talcum, the itching and swelling subsided within 24 hours, and a cure was effected by the fourth day.—Arthur J. Schneidenbach, M. D., St. Bartholomew's Clinic. Sample with chemical formula, bacteriological and clinical reports free upon application. It will not irritate the most sensitive skin. 22c. per box. J. S. Tyree, Chemist, Washington, D. C.

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The Differential Diagnosis of Acute Leukemias.—Schultze (Munch. med. Woch.) mentions the difficulty that exists in differentiating acute lymphoid and myeloid leukemias. In the chronic cases the differential diagnosis is easy, but acute cases are quite the reverse, for here one has to differentiate the lymphoblast, the antecedent of the lymphocytes, from the myeloblast, which is the parent cell of the granular leukocytes. The two cells are practically identical in size, each possesses strongly basophilic protoplasm, and their nuclei are similar. Schridde describes a narrow, clear border about the nucleus of the lymphoblast, but for most observers this is not a practical differential point. Schultze makes use of the so-called oxydase reaction (indophenoblausynthese) for differentiating these cells and especially for differentiating the tissues of lymphoid from those of myeloid leukemia. For carrying out this reaction a 1 per cent. aqueous solution of axnaphthol and 1 per cent. aqueous solution of dimethylparaphenylendianin (E. Merck) are needed. The naphthol, which is only slightly soluble, is warmed and then filtered after cooling. The two solutions, when united, form a blue color under the action of light through an oxidative synthesis. In the presence of an oxidative ferment the process is greatly accelerated. Myeloid tissue, when treated with these solutions, is stained blue, owing to the presence of an oxidative ferment, while lymphoid tissue remains unstained. The method is especially applicable to tissue.

The Role of Human Contagion in Infantile Tuberculosis.—Comby (Arch. de Med. des Enf.) says that the role of milk and meat, of food products and intestinal tuberculosis, is a small one in the causation of tuberculosis in infants. Children are born neither with tuberculosis nor with a predisposition to the disease. If the children of tuberculous parents are removed immediately from the surroundings in which the parents cough and spit, and are brought up in good hygienic surroundings, they grow up strong and well. If they remain in their homes they die of tuberculosis, derived from the infected house. Pallor, emaciation, narrow chest, and micropolyadenopathy are symptoms not of a tuberculous predisposition, but of latent tuberculosis. Transmission of tuberculosis by heredity does not exist, neither does predisposition. Those who assert that they do are guilty of misinterpreting simple facts. In the immense majority of cases tuberculosis is derived from the family by inhalation. The measures taken against animal tuberculosis and tuberculous milk have been useless, and have not diminished the number of cases among infants. Neither has sterilization of milk. To have a bad effect milk must be full of bacilli from mastitis. If milk was the cause, all the people who drink the same milk should be affected by it. On the contrary, only those exposed to the contagion have the disease. Out of autopsies on 1447 infants made by the author tuberculosis was found in 536 cases. In all these cases the bronchial glands were infiltratedr The older the children, the more frequently was tuberculosis found. If it came from milk the younger children should have it more frequently. Infants who are kept in the home are less affected than those of an age to mingle with the public. Many of the chronic coughs and asthmas of old people are tuberculous, and the disease is transmitted to the infants of the family. Prophylaxis must deal with the removal of all cases from the family, not with the care of milk and meats.

The Early Diagnosis of Pulmonary Tuberculosis.—Hausmann (Deut. Arch. f. klin. Med.) has been impressed by the number of gastric cases in his practice which presented evidence of apical lesions. Those who raised no sputum he often sent to a lung specialist, and frequently his diagnosis of incipient pulmonary tuberculosis was reversed. Feeling that he was correct, he decided to examine the fasting stomach early in the morning for small particles of bronchial secretion. The author's first patient gave no history of cough, but had definite signs in one apex, the chief complaints being a feeling of fulness and weight in the epigastrium. A very small particle of mucous, enclosing pus cells and lymphocytes, and a few alveolar epithelial cells, were obtained from the stomach, and when stained showed about ten tubercle bacilli in a field. In the last two months he has had six similar cases, all with the same result. The writer believes the usefulness of this method and suggests that some of the so-called "closed" or "healed" cases may be shown by this means to be in reality "open" cases of tuberculosis.

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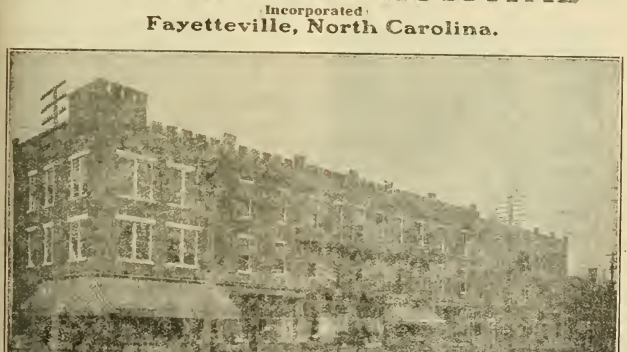

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Next Meeting St. Louis, Mo,. Oct. 12, 13, and 14th 1909.

SOUTHERN SURGICAL and GYNECOLOGICAL ASSOCIATION.

Annual meeting at Hot Springs, Va., Oct. 5-6, 1909.
W. D. Haggard, M. D., Sec., Nashville, Tenn.
Stuart McGuire, M. D., Pres., Richmond, Va.

SOUTHERN MEDICAL ASSOCIATION.

Annual meeting at New Orleans, La. Nov. 9-10-11-12, '09.
Oscar Dowling, M. D., Sec. Shreveport, La.
Giles C. Savage, M. D., Pres. Nashville, Tenn.

MEDICAL ASSOCIATION OF THE SOUTHWEST.

Annual meeting at San Antonio, Texas, October, 1909.
F. H. Clark, M. D., Sec., El Reno, Okla.
Jabez N. Jackson, M. D. Pres., Kansas City, Mo.

TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.

Annual meeting at Richmond, Va., Feb. 8, 1910.
J Howell Way, M. D., Sec., Waynesville, N. C.
LeGrand Guerry, M. D., Pres., Columbia, S. C.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

Annual meeting at Birmingham, Ala., 1909.
J. N. Baker, M. D., Sec., Montgomery, Ala.
B. L. Wyman, M. D., Pres. Birmingham, Ala.

FLORIDA MEDICAL ASSOCIATION.

Annual meeting at Pensacola, Fla., April 7-9, 1909.
J. D. Fernandez, D. D., Sec., Jacksonville, Fla.
J. F. McKinstry, Jr., M. D., Pres., Gainesville, Fla.

MEDICAL ASSOCIATION OF GEORGIA.

Annual meeting at Macon, Ga., April 21, 1909.
Claude A. Smith, M. D., Sec. Atlanta, Ga.
Thos. D. Coleman. M. D., Pres., Augusta, Ga.

KENTUCKY STATE MEDICAL ASSOCIATION.

Annual meeting at Winchester, Ky., Oct. 1909.
A. T. McCormack, M. D., Sec., Bowling Green, Ky.
John G. Cecil, M. D., Pres., Louisville, Ky.

LOUISANA STATE MEDICAL SOCIETY.

Annual meeting at New Orleans, La., May, 4-6, 1909.
E. M. Hummel, M. D., Sec., 141 Elk Place, New Orleans, La.
E. Denegre Martin, M. D., Pres., New Orleans, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Annual meeting at Jackson, Miss., April 13, 1909,
E. F. Howard, M. D., Sec., Vicksburg, Miss.
J. W. Gray, M. D., Pres., Clarksdale, Miss.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Annual meeting at Wrightsville, N. C., June 16 and 19, 1910.
D. A. Stanton, M. D., Sec., High Point, N. C.
Jas. A. Burroughs, M. D., Pres., Asheville, N. C.

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Dr. G. K. Angle, Silver City, N. M. Pres.
Dr. G. S. McLandress, Albuquerque, N. M. Secretary.
Dr. C. G. Duncan, Socorro, N. M. Treas.
Next meeting at Roswell, N. M., in the fall of 1909, the date to be announce later.

SOUTH CAROLINA MEDICAL ASSOCIATION.

Annual meeting at Summerville, S. C., April 21, 1909.
Walter Cheyne, M. D., Sec., Sumter, S. C.
S. C. Baker, M. D., Pres. Sumter, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.

Annual meeting at Nashville, Tenn., April. 13-15 1909.
Geo. H. Price, M. D., Sec., 146 8th. Ave., N., Nashville, Tenn.
B. D. Bosworth, M. D., Pres., Knoxville, Tenn.

MEDICAL SOCIETY OF VIRGINIA.

Annual meeting at Roanoke, Va., fall of 1909.
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VOLUME 60. NUMBER 3. Charlotte, N. C., September, 1909. $2.50 PER ANNUM

Table of Contents, Page 201.

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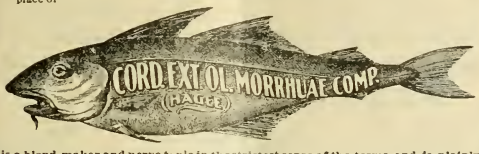

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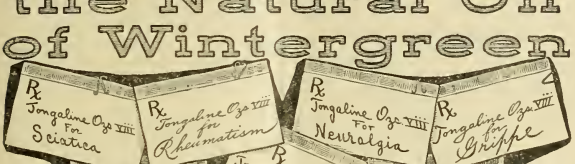
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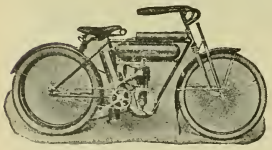

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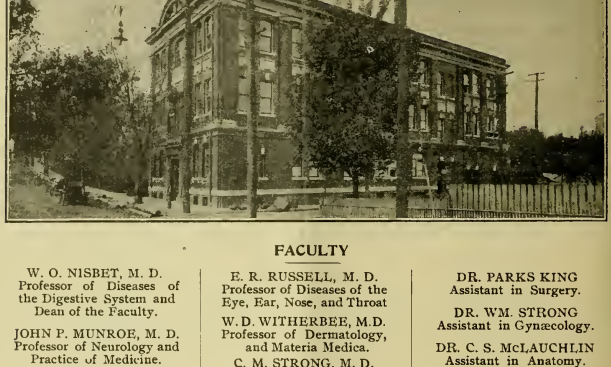

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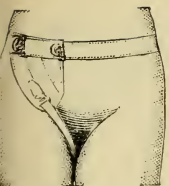

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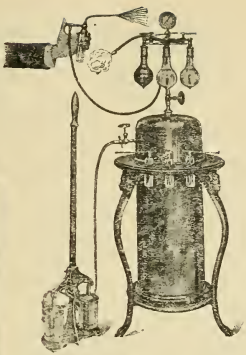

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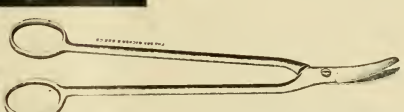

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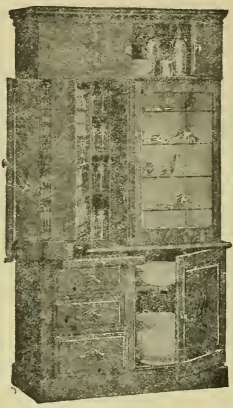

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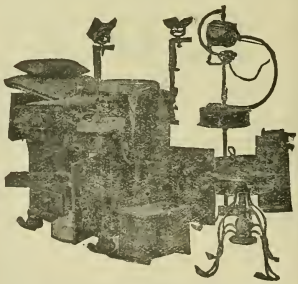

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The Charlotte Medical Journal

VOL. LX CHARLOTTE, N. C., SEPTEMBER, 1909. No. 3

Antitoxin or Serum Therapy in the Treatment of Whooping Cough, Measles and Scarlet Fever.*

By Stephen Harnsberger, M. D., Catlett, Va.

This paper is the compliment of a paper read at George Washington University Hospital, Nov. 14, 1908. I read that paper for three reasons:

(1) To emphasize the fact that textbooks, the general practitioner's main source of information, holds to the same treatment of whooping cough that was used a half century and more ago.

(2) To suggest a modification in the treatment of whooping cough that not only adds to the comfort of the patient but keeps down complications; and as the complications are the usual causes of death in this disease, it lessens the mortality.

(3) To impress the importance of a better individual initiative and to urge the profession to wake up to the probable good to be had from antitoxin in the treatment of whooping cough.

About three years ago, I read of where an injection of diphtheria antitoxin in a whooping cough patient was followed by almost immediate disappearance of the paroxysms and a rapid recovery. This interested me. I read another such statement during the early part of last year and I determined "to wage an instant trial" as soon as opportunity favored me.

During the session of the Medical Society of Virginia in Richmond, last October, I called to see Mr. Belt, representing the H. K. Mulford Co., as I wanted to know on what terms I could get diphtheria antitoxin for experimental purposes. Reporting our conversation to his Company, their Dr. Stewart wrote me promptly, offering me every assistance and help at his command. In my next letter, I asked to be furnished with all the printed matter he could get bearing on the use of diphtheria antitoxin in the treatment of whooping cough and other diseases of childhood. In reply he gave me a letter of introduction to Dr. Henry B. Bryan, of Philadelphia; evidence sufficient that nothing of importance had been written on this subject. I wrote Dr. Bryan, telling him what I wanted, as well as of my inclination to thoroughly study the action of antitoxin in such diseases. Dr. Bryan's reply was plainly to the point. He mailed me clinical experience and observation taken from his case records, and which I shall take pleasure in presenting to you presently.

In the meantime I mailed letters to a number of painstaking physicians requesting them to notify me of cases of whooping cough, measles and scarlet fever occurring in their practice, offering to furnish the antitoxin and my services free of charge. I was anxious to be able to add something to Dr. Bryan's statement of bed-side facts; but the time has been so short in which to make my observations, that I shall defer my personal report to some future meeting.

Dr. Bryan's report: "Antitoxin—a substance developed in the body counteracting poisons generated or planted there.

"Without at the present time going into any explanation why diphtheritic or any other specific antitoxin could be rationally of any benefit in the treatment of measles or scarlet fever, it may be of interest to some physicians to learn of some of my experience in the use of diphtheritic antitoxin in the treatment of such diseases, while in charge of the children of St. Vincent's Home and Maternity Hospital of Philadelphia, Pa.

"As a reason for having used the diphtheritic antitoxin in scarlet fever and measles, it will be well to remember that it is generally conceded that the tissues and fluids of the body contain, or at once manufacture antitoxin, the effects of which are directly antagonistic to the toxin of disease. The secretions thus formed are capable of protecting the body from invading bacteria and are distributed to all the tissues of the body and found especially in the serum of the blood.

"In the treatment of measles—a disease which Osler asserts stands third in the death-rate of eruptive fevers, and Holt speaks of an epidemic in 1892, in the Nursery and Children's Hospital, of New York, in which the mortality was 35 per cent., and in nine thousand three hundred and thirty-nine (9339) cases of measles in the hospitals of Paris, there were three thousand and ninety-six (3096) deaths, or a mortality of thirty-three and five tenths (33.5) per cent.

"In the year of 1906 of the history of St. Vincent's Home and Maternity Hospital an outbreak of measles occurred among our four hundred children. One hundred and seventy-one children contracted the disease, most of whom were under three years of age. This occurred in January, 1906. As each child showed the first symp-

*Read before Tri-State Medical Society, Charleston, S. C,

toms of measles five hundred units of antitoxin was immediately given. In this particular instance the deaths numbered twelve, most of which were from complications following the measles, principally pneumonia; in addition we had five cases of cancrum oris, four of whom are now living.

"This death rate is far below any other similar outbreak we ever had and I feel quite sure the antitoxin treatment was the alleviating cause, as in every other way the treatment was the same as in previous epidemics in this hospital.

"As to the use of antitoxin as a preventive of scarlet fever, I will simply state a peculiar circumstance that rarely presents itself to the medical profession: In March, 1907, diphtheria broke out in our detention ward containing fifteen children. Two cases developed. I immediately gave each of the fifteen children five hundred units of diphtheritic antitoxin—the developed cases received three thousand units. The same day a child having been taken in the Home from the outside developed scarlet fever. On this account we were obliged to send to St. Joseph's Hospital for extra nurses, one of whom, Miss McK., arrived on Saturday. On Monday she was seized with vomiting, sore throat, fever and headache. On Tuesday she was covered completely with a most intense and typical scarlet rash. On account of having measles also in the detention ward, we were unable to remove the nurse to another building or hospital and consequently she was obliged to be confined to a room adjoining the detention ward. Notwithstanding thirteen children were exposed to diphtheria and scarlet fever, as well as measles, not one of them contracted any of these last mentioned diseases, although they had been constantly exposed to them for three weeks.

"There can be no doubt the diphtheritic antitoxin prevented the spread of diphtheria. What prevented the spread of scarlet fever and measles?

"In as much as the horse by nature is immuned against the diseases of diphtheria, measles, scarlet fever, etc., I believe there is some rational therapeutics in using animal serum pure or after inoculations of different infectious diseases of which the animal has become immunized by such inoculations and it is probable it would answer just as well to use the pure serum from an animal that is naturally immunized to any disease to which man is susceptible and to depend upon the said natural immunizing power of the other animal to lessen the course of infectious diseases.

"Since preparing this article I have made some experiments with the use of pure horse serum in pertussis. The first upon my own son, aged nine, giving him ten (10) c.c., the effects of which were very gratifying. The next experiment was an adult, Leonard A., with pertussis. History: Age 28; sleeps badly; appetite poor; bowels all right; urine normal. Present illness whooping cough.

"Aug. 4, '07. Coughs every half hour, with vomiting. Treatment, 10 c.c. sterile horse serum. Aug. 6, '07. Patient better —coughs every hour, no vomiting, headache after coughing. Treatment, 10 c.c. sterile horse serum. Aug. 9, '07. Patient much better, rash on both arms, headache gone, coughs every eight hours. Aug. 10, '07. Violent urticaria all over body. Aug. 12, '07. Patient perfectly well and at work.

"Having satisfied myself of the safety of the treatment, I awaited an opportunity to try it again, which occasion occurred in October, 1907, in the form of pertussis at St. Vincent's Home and Maternity Hospital, Philadelphia, Pa., and to the service of my assistant, Dr. F. J. Webster, I am indebted for the following report of the result after the inoculation of 10 c.c. of sterile horse serum to each of ten children under three years of age suffering with pertussis. (Copy of Dr. Webster's report) St. Vincent's Home, 70th Street and Woodland Ave.

"The use of serum in the treatment of pertussis—report to Dr. Henry B. Bryan: Ten children in all received the treatment by serum. Seven were treated during the first three days after the disease. Three children did not receive the treatment till the third week of the disease. These three had pertussis of the most pronounced type; they moped in a corner all day, coughing and vomiting every hour or so, often expectorating bloody mucus. The children who received the treatment early in the disease were the most promptly benefited. The paroxysms of coughing were rendered much less severe—they scarcely whooped at all, and vomited only once or twice a day. Some days there was no vomiting and their sleep was not disturbed by coughing after having retired for the night. Their appetites were improved and they were more cheerful and happy.

"Out of those seven children who received treatment early in the course of the disease, only one developed urticaria. It was probably instigated by the serum and promoted by constipation. After receiving a dose of Oleum Ricini it cleared up in a day or so, leaving the patient practically free from pertussis. The fits of coughing were very mild and the vomiting only a little mucus. The characteristic "whoop" was no longer heard, improvement was con-

tinuous and in a week's time the patient was practically well.

"The children who did not receive treatment until the third week of the disease were not benefited so much as those who received it earlier; one case did not seem benefited at all, two were slightly benefited. Four days after treatment one case developed urticaria, which promptly cleared up after receiving a dose of oil. On recovery from urticaria the whooping cough was practically broken. The paroxysms of coughing were less severe and vomiting occurred once a day for a week. The child's health was improved in every way and she rapidly gained in weight.

"Ten days after treatment a second case developed urticaria. This was the only one of the lot who did not seem benefited by the serum. The paroxysms of coughing were very severe and she frequently vomited food and bloody mucus. Once the rash developed, the whooping cough was practically gone. Improvement was rapid.

"The conclusions are obvious: The serum treatment is a benefit in pertussis—(1) it lessens the severity of the paroxysms; (2) it prevents vomiting to a great extent; (3) it improves the condition of the child, so that she feels better, sleeps better and eats better.

"The only bad effect is the urticaria, which I think can be prevented by a dose of oil in from two to three days after administration of the serum.

"In reading over Dr. Webster's report, it should be remembered that these were institution children; and while we do everything we are able to do, they have not the physical or hygienic advantages of outside children. I think, therefore, our results are more convincing of the rational use of animal serum to combat diseases of which any particular animal is not susceptible."

Anaphylaxis: In closing, I wish to state that I am mindful of the danger that lurks in the hypodermic use of diphtheria antitoxin in the treatment of diseases other than diphtheria. While I have no personal knowledge of such deaths, and none are reported by Dr. Bryan, although he has given as high as fifty-five (55) inoculations of diphtheria antitoxin to as many children under 3 years of age, suffering with measles, in one afternoon, "that there is," says Dr. F. E. Stewart, "a certain amount of risk in injecting alien sera, owing to the fact that certain people seem to have been sensitized in some unaccountable way to horse serum, must be accepted as a fact."

The positive personal experience of Dr. Bryan rarely falls to the lot of one individual, and I trust I do not presume beyond discretion, when I say that I think the members of this Association and of the entire profession should be grateful for this advance towards specific therapy in the treatment of whooping cough, measles and scarlet fever.

The Business Methods of the Profession.*

By Dr. Edwin G. Moore, Elm City, N. C.

Mr. President and Gentlemen:

I have formulated no prescribed rules nor attempted any specific directions by which you gentlemen may hope to learn from me how to direct yourselves into the roadway of business success. I cannot, in the compass of a short paper, touch many salient and essential facts, besides each one is expected to contribute to this important symposium, and it shall be only my purpose to speak in general terms, leaving you to contribute from your judgment and experience such facts and knowledge necessary to the finish of this paper.

The selection of a subject of one's own choice admits of no apology for expression or finish for the privilege of quotation from standard books and recognized authors, either to express an idea or emphasize a truth is a potential factor, and I might add a desideratum in the construction of a thesis on almost any subfect. But to be given a subject and bidden to write with the injunction to neither phrase nor paraphrase the spirit or essence of what has been written before, in other words speak only along original lines, is a task and responsibility, the burden of which this speaker would be glad to donate to some more versatile brother. Once before, when I was younger than I am now, a pretty maiden handed me an autograph album with the request that I write something original. Happy was I that my memory recalled that appropriate couplet of an unknown author who under similar circumstances on a former occasion wrote as follows:

"AN ORIGINAL SOMETHING.

"Fair maiden you would ask me to write
But pray tell me, how shall I begin?
For I fear I have nothing original in me
Excepting Original Sin."

For this I was given due credit for having done a very clever act, but my audience was not so well informed as you gentlemen, and perhaps not so critical.

Someone has written a book on "The Doctor's Wife," another on "The Doctor Himself," and to all of the younger brethren I would commend the perusal of these books, especially "The Doctor's Wife," who is often made to suffer most at the

*Read before the Wilson County Medical Society at Wilson, N. C., July 2nd, 1909.

hands of him who had promised to protect and defend her.

The code of ethics is a marvelous product of mind and heart, superb in literary design, ideal in conception of human love and human duty, touching only the high places of conscious virtue with the wooing influence of poetry and song. I have heard and read many tender and touching tributes from divers sources extolling the virtues and prophesying the rewards of our beloved profession, and I have been made to feel glad that I was a comrade and could claim fellowship with that noble band of men who go about on earth doing good and hoping to receive their crown of reward in the life everlasting; but so far as I now recall I have neither seen nor heard any suggestion devising ways and means looking to the promotion and betterment of their material comfort and prosperity. So long neglected this may yet be one of the triumphs of the twentieth century, and it may be possible that at some distant day medical colleges to meet the growing demands of the profession and the public will establish a chair of bi-metalism and economics, and State examining boards will require a sufficient evidence of proficiency in this branch or department of knowledge that will at least give assurance of the candidate not becoming a subject of poverty or a charge of charity.

The subject which your Society has assigned me—"The Business Methods of the Profession"—I hardly know whether to treat seriously or in a lighter vein. I am not sufficiently advised if the profession has any "business methods." Those of you who are so informed will have the opportunity to enlighten me, and while I have walked only the beaten path of a country doctor, moving in silence and oftentimes in darkness, yet would I welcome the light and rejoice in its gladness. I have often felt impressed that of all professions it was the least business-like, and had perhaps less of method and business direction. I will not be going very far wrong to state that every trade, profession, or vocation is either a question of choice or a matter of environment, a volition of purpose or a coercion of circumstances, and in either event it is the individual fitness or adaptation that qualifies or disqualifies the measured terms of success. Barring a few cases of accidents, success in any line, without exception to medicine, is dependent more upon the eternal fitness of the individual than to any co-existence of circumstances. The intellectual, moral, and industrial elements or attributes of character must be blended and harmonized before the world can stand up and count him worthy of success. A genius without energy or moral character scales no altitudes and reaches no pre-eminence, and misdirected energy, however much it toils, or suffers, or hopes, fails of progress and languishes in defeat. Men may be born equal but if so they fail to maintain this equality. Success may be possible unto all men but facts prove not along the same line nor of the same kind. We need no historian, nor biographer nor philosopher to tell us these facts, for we have only to look about us and behold for ourselves. Who among you does not respect the life and memory, the mind and character of those wise, kind-hearted and courtly gentlemen in medicine who helped ta initiate this Society and gave it their support and encouragement and walked among us as our counselors and our friends? Who did more to up-lift the high character of our profession by precept and example than the courtly and chivalric Dr. Ruffin, and who did more of kindly deeds of charity and bestowed more of generous labor than the genial and kind-hearted Dr. King? Each a striking individuality, yet above all a gentleman. Who among our citizenship does not feel a sense of pardonable pride that Wilson county had the material and the man who, irrespective of conditions and circumstances, could measure up to the standard requirements and the crowned heights of a Federal Judgeship? Do you tell me this is luck, or, if you please, an accident? I could not, and would not, believe it if you did. I answer it is but another proof of the reward that grows out of that trinity of virtues—intellect, energy and character. Without assuming further controversy, and to be more concrete in expression, I would propound the query, "Why do we practice medicine?" Are we actuated by a distinct mercenary spirit, or are we missiona ies in the field of philanthropy? Are we engaged as a matter of livelihood, a bread winning proposition for ourselves and dependents, or as a sportive recreation for pleasure or pastime? If either proposition be accepted, then I would in humility, yet in truthfulness, suggest that lawn-tennis, golf or membership on a baseball team would afford more merriment and possibly more money; certainly an easier job with more reputation, though fleeting and ephemeral.

I am strongly persuaded that he who enters this profession with the view of money-making or money-getting has not only missed his calling but his election also. The indifferent, the indolent, the lazy fellow in search of an easy task where he may find delight in the rose garden or rest under the shade of the trees, had best seek him another job. The ambitious seeker for dis-

tinction or applause may likewise be directed to other and fairer fields, easier of access and more fertile in results.

But to the virile man, the earnest worker, the seeker after scientific truth and with the purpose to contribute in some measure towards the alleviation of human suffering and the uplift of his fellowman, it offers an inviting field, broad and wide and teeming with possibilities. But the laborer is worthy of his hire, and a life devoted to such work and consecrated to such purposes deserves and should have such compensation in material things as will conduce not only to his physical comfort but insure his own self respect. I would not indulge the hope of riches, but you are entitled to a competency of support, commensurate with the skill you dispense. To the most of us medicine is our profession and our business, our vocation and the sole contributing factor as our means of a livelihood. It behooves us to give it our best service and demand of it its best rewards.

Happy is he who is content with his choice and finds the peace of satisfaction in its field of labor. As Elbert Hubbard tersely says, "If you don't get happiness out of your work, you will never know what happiness is." He who does not feel a keen and abiding faith and interest in his work fails in the higher and more dignified development of his own personality and contributes but little of real value to the support and growth of his chosen profession. It is such an one who becomes the unhappy, drivelling subject of a jealous mistress, out of harmony with its true aims and purposes, and the unmethodical and unbusiness-like personality that so frequently goes down in defeat and failure.

The public may not judge you aright, it may be you are criticized too adversely or accredited with skill you never possessed, but every man is conscious of his own strength or his own weakness, with a definite certainty unknown outside the realm of his own conscious mind.

But I want to tell you a secret, a truth founded upon facts learned by observation and experience, and it is this: The public has neither appreciation nor respect for a real poor doctor. He commands neither their esteem nor their patronage while toiling here on earth, and it is only when footsore and weary with the race and the burdens of life he lays himself down in the slumber of death that mourners gather about his last resting-place and with a benediction of simple words speak a modest farewell to his departed spirit.

The public spirit and the public conscience demand that a doctor shall be competent in skill and knowledge, honest and zealous in his work, cultured in manner and safe in character, and it never has objected to pay the price necessary to give adequate support to such of the profession. Bad pay and inadequate support does not arise "de novo" with the public, but is usually chargeable to the directness and indirectness of the individual members of the profession.

You have given me the liberty and I am going to make a rather startling statement, but I won't publish it; I am only telling it at the hearth-stone of our family circle and I don't want it to shock even the sensitive. The public has been long-suffering and endureth much, and I have no doubt some doctors have but little cause for complaint when they stop to consider the quality of service they barter in exchange. A doctor who is not informed in the accepted teachings of his profession and does not make due effort to acquaint himself, but is content to blunder along in a mis-shapen and careless way, indifferent to the best interest of his patient, and oblivious to his duty and the demands of his profession, in my opinion gets all that belongs to him, let the credit sheet be ever so small.

Mediocrity is the one great barrier in the way of genuine progress; we attempt too much of labor and do too little of real scientific work. There is too much of jealousy and too little of true fraternal spirit. A generous rivalry is a healthy stimulus to greater and larger development, but a harsh and bitter antagonism is the essence of all littleness and is to be forever despised. It is a method and policy with some, and in fact it is their stock in trade, to wage a ceaseless and eternal warfare of direct, bitter and personal antagonism against other members of the profession, or secretly by insinuations or uncharitable criticism, under cover, endeavor to cripple their influence or hinder their progress. This is a measly and contemptible means to an end, the sole purpose of which is to build himself by the destruction of another without regard to cause or effect. Such poor policy is the growth of a poorer mind and heart whose day of judgment is near at hand. I pity the poor deluded soul who "knows it all," and seeing no virtue in others boosts himself as a pattern of excellence and a paragon of wisdom, for he surely sees through a glass darkly. A professional braggart bears a close relationship to a professional liar, neither of whom can be trusted or believed.

We can no longer afford to wage war upon each other in the private toils of our work, for it is a deadly foe to our fraternal peace, disastrous to our professional prog-

ress and a dangerous enemy to our best business interests.

We are told "a house built upon the sand" cannot withstand the fury of the tempest nor the ravages of the storm, nor can a life without character as the bedrock for its foundation withstand the struggle for its existence with which it must contend.

Especially will you find it true in medicine that her labors are exacting, even burdensome at times, and the exigencies of environment and the increased demands of modern society will call for the highest art and diplomacy to provide the essentials and necessaries for the maintenance and support of a combined professional and domestic life. It cannot be said of her that her ways are ways of pleasantness and her paths paths of peace, but rather a hard fought battle, a tense, strenuous life full of labor and of duty, but with a reward of victory to all who are faithful and true.

Viewed solely from the vantage ground of business methods it pays to be a wise man, learned in knowledge and science, skilled in art and culture, honest and truthful, dignified yet polite and courteous, humane and charitable, courageous and manly in all things that elevate and ennoble a true character and constitutes a true gentleman.

Meet your own obligations to your creditors and make your debtors meet theirs. Do your part of real charity, or all of it if you wish, but require people who can pay you to do so—they will think more of you and you of them. Be just in your charges and collect it, but don't render nominal service thinking to increase gratitude or hold patronage, for it will not do it. Measure your fee by the value of your service. Don't make other people pay for your own mistakes; if you haven't knowledge, then get knowledge, for there is plenty for sale. But don't get too wise, especially in your own conceit. Don't know it all—leave a little for the other fellow to prevent atrophy and stasis when you are gone. Try to be professional if they will let you. Be charitable to the old doctor and merciful to the young. Don't be the dog in the manger, but be a gentleman of culture and character, a laborer of energy and purpose, and a good doctor who, conserving all the rich elements of manly virtue, hopes only for that which is wisest and best and strives to attain it.

Prophylaxis in Typhoid Fever.*

By W. P. Horton, M. D., North Wilkesboro, N. C.

The triumph which has been reached in the name of the medical profession in the discovery of the real cause and spread of or preventing the propagation of such germs as cause this disease has opened up many possibilities in the improvement of health, strength and life saving of the American people. But there is yet much to be done, the effects of bad water, impure food, ill ventilated houses, and failing to isolate contagious and infectious diseases is becoming more and more apparent every day.

The study which great sanitary authorities have given the matter has imposed much more distinctly the burden upon the municipal, State and Federal Governments in looking after the health of the American people.

But my purpose in selecting this is to discuss from a local standpoint, or more definitely some years observation in a mountain town, where complications of malaria can safely be excluded by location and altitude. Therefore when a patient presents symptoms of typhoid fever we can readily determine what we have to contend with.

A little over ten years ago more than 20 per cent. of the population of North Wilkesboro were stricken with typhoid fever, in fact this disease spread with such rapidity and to such an alarming extent that not only the health officers, but the citizens at large began to search for the cause. Investigation showed that four years previous some negroes who lived in the immediate vicinity had quite a number of cases of the most malignant type, many of them having hemorrhage, and these cases were badly managed, the excreta was recklessly thrown out on the ground to be taken up by the water supply and underground drainage.

It was clearly shown by this history that these cases were caused by the germs findinn their way through the surface drainage to the wells, all of which showed more or less of this infection. Therefore, the best and only means of preventing the spread of typhoid fever is to destroy the germs and prevent their accumulation, and the only remedy that is sure is the application of heat. However, the first attack should be made in the treatment of the patient, and as I firmly believe in antiseptic treatment and there is no doubt in my mind but that Dr. Flint had the destruction of these germs in view when he recommended as a treatment for typhoid fever carbolic acid and tincture of iodine, three parts of the first to two of the latter; this was later improved on

*Read before the recent meeting of the State Medical Society at Asheville, N. C.

by Shumaker who recommended beta naphthol in much larger doses, which not only serves as an antiseptic to the ulcerated bowels, but seems to destroy typhoid bacilli, it being much stronger and should have the same effect on the intestinal ulcer as carbolic acid for external use, and there is no better time to attack these little enemies than when we have them bottled, as it were. The second attack should be made immediately after the evacuation by free use of chloride of lime and other strong disinfectants. Immediately after the application of the disinfectant the stool should be removed to some back lot where the last and fatal attack should be made by providing a tub that will hold about three bushels, place it with the bottom about ten inches in the ground, partly filled with excelsior or straw and a carefully fitted plank over the top. This is the point where the most is accomplished; first, by preventing the underground water supply from becoming infected; second, by preventing the most common carrier of all germs, or better known as the house-fly.

It is hardly necessary to cite authorities on the capacity of the house-fly which carries bacteria from one place to another. This capacity has been amply demonstrated and confirmed. The house-fly is known to be strongly attracted by noisome odors. It hovers about and feeds and propagates on human excreta. It eats pus, sputum, and other pathological products. In fact its habits are well adapted to favor the soiling of the exterior of its body, and to fill its interior with various species of disease germs. Pathogenic bacteria have been demonstrated on its proboscis, its feet, and in its digestive tract and its excreta, the well known fly specks.

The kinds of infections it is best adapted to transport from place to place are typhoid tuberculosis and Asiatic cholera. By seeding our foods, notably milk, with these germs which it obtains from dejections will cause localized family epidemics.

The bacilli of tuberculosis and typhoid may be disseminated by it, because the fly will feed on sputum as well, and the bacilli may pass alive through the digestive tract and appear in the fly specks, and has been found living in the excreta of flies fed with sputum and excreta fifteen days after they had passed. The severe epidemics of typhoid in our camps during the Spanish-American war were attributed by the investigating commission to flies. There can be no doubt that the house-fly is a potential danger in proportion to the number of individuals living in our environments.

I believe that this position will hardly be questioned by any one today, and it is not necessary to spend any more time on this aspect of the subject. The more important problem confronting us is how to restrict and suppress this noxious insect. In order that the house-fly may be controlled we must know where it breeds. This little pest is bred and born in the post heaps and nourished from the stables and closets until it becomes wise enough to go to all accessible tables three times a day for dessert. He crawls over the different articles of food with his infected feet planting his long verbossis in the most delicate dish, only to eject its filthy contents and refill with something better.

In a comparative statement science has shown more deadly germs contained in the trunk of a single house-fly than the trunk of an elephant and the former should be regarded as the more dangerous of the two.

The house-fly is too timid to go in dark places and can be eliminated from our closets by the small cost of twenty-five cents and a little extra care. The methods I propose will eliminate the fly from all infected substance and make the dangers very much less than the old and almost universal plan of burying the stool in the ground, which should be forever condemned by the medical profession. When the above suggestions have been carried out and the patient reaches the convalescent stage the application of a match to a half gallon of coal oil used in and around the tub will complete the work and you can rest assured that the germs from the typhoid patient have not been allowed to infect the water supply of the entire community nor has the multitude of flies of the entire town been allowed to scatter the germs from your patient. This can be done at a cost of less than fifty cents and until a united effort by both State and county, with the co-operation of the American Health League of those germs can we expect the slightest improvement along this line.

A Case of Osteomalacia.*

By J. Steven Brown, M. D., Hendersonville, N. C.

Because of the rarity and gravity of the disease, I feel constrained to report briefly a case of osteomalacia, that quite recently came under my observation. Dock has been able to collect reports of but ten cases in America. No doubt others have occurred without going on record.

The family history is fairly good; four sisters and three brothers being alive and in good health, while one sister died at

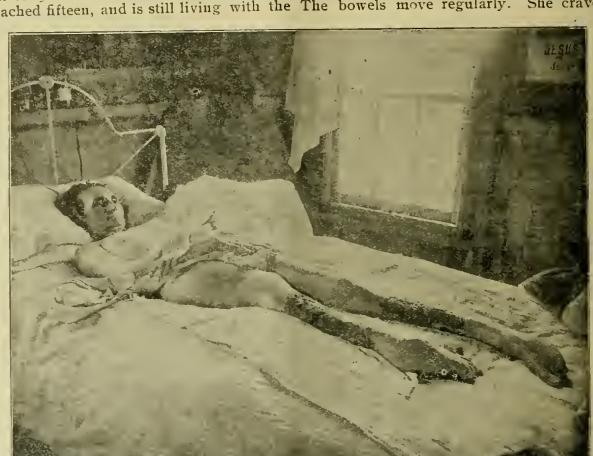
*Read before the recent meeting of the State Medical Society at Asheville, N. C.

eleven of some spinal trouble. The parents were healthful.

Patient is a native of Hominy, in Buncombe county, is now forty-five, and may weigh 100 pounds. Her normal weight was 107. The first point of special interest in her personal history is that normal menstruation was established at fourteen and continued without noticeable irregularity till forty-four. Patient married before she reached fifteen, and is still living with the husband. Contrary to classical history she never miscarried, and never even became pregnant. At twenty-four a case of so-called erysipelas developed in her right leg and continued for six months, leaving an ulcer which remained for some months longer. A few years later she often suffered from supposed rheumatic pains in her hips. When about thirty-three she endured what she called "deep boring pains" in the marrow of the bone of the left leg. After suffering this torture some six months, she says she felt her ankle pop as she was walking across the room. She was unable to use this limb for 18 months. Then for a year and a half she managed to hobble around. About this time her fingers and toes began to be emaciated and drawn and her right thigh began to ache and throb. Two or three years later the thigh bursted and shivered as she expressed it. An exudation appeared on left leg about six months after the ankle popped and on the right leg about six months after the thigh shivered. Both legs are now covered with great fishy scales.

Some five years ago the left arm broke or bursted above the elbow. Much pain is now felt in the right shoulder.

Her pelvis is flat. She has no bedsores. The bowels move regularly. She craves much fruit. Her teeth are bad.



The cause of this serious disturbance in metabolism is usually referred to child-bearing. It might better be referred to some dyscrasia of the sexual organs independent of child-bearing. The disease occurs far more frequently in prolific mothers, but may occur in sterile women and even in men. The remedy par excellence in the early stages is castration.

Amoebic Dysentery with Abscess of Liver Confirmed at Autopsy.

By Wm. Allan, M. D., Professor of Parasitology North Carolina Medical College, Charlotte, N. C.

During eighteen months residence in Charlotte, I have neither seen nor heard anything of tropical abscess of the liver. Inasmuch as our dysentery death rate equals our typhoid death rate, liver abscess

can be no uncommon thing here. In the last fifteen months I have seen twenty-five cases of amœbiasis, with ten deaths. In only one other case was liver abscess suspected.

CASE.—Mr. F., admitted to the charity ward of St. Peter's Hospital, July 22, 1909; white, male, age 55, married, box-maker. Well-water, vegetables from home garden.

Family history, negative. Past history, typhoid, pleurisy, bowel, stomach and liver trouble fifteen years ago. Passed a renal calculus some years ago (says it is in his bladder yet). No urinary symptoms until last week. Has had dysentery off and on for a great number of years.

Present Condition.—Patient comes in complaining of bloody flux, from which he has suffered for three months. Is greatly prostrated, emaciated and anemic, has straining and tenesmus at stool, with gross blood and mucus in the movements. Has protracted attacks of hiccoughs, which have caused soreness of the abdominal muscles. Some tenderness over the sigmoid but none over the liver. Sleeps well, good appetite.

Physical Examination.—Nothing elicited except increased liver dullness. This extended two inches below the costal margin and across to the left nipple line.

Laboratory Report.—Urine: Acid, sp. gr. 10.20, no albumen, no sugar. Microscopical: Blood and pus, probably from the bladder. Blood: Haemoglobin 70. Differential count, polynuclears 92, mononuculears 8, eosinophiles 0. Sputum: Thin, gray, liquid, offensive, no amœba present, not examined for T. B. Feces: Liquid with blood and mucus. Entamœba Histolitica present in considerable numbers.

Patient ran no temperature, pulse 85 to 95, respiration 18 to 22.

Diagnosis,—The diagnosis of amœbic dysentery with abscess of the liver was made on the strength of the fecal picture, on increased liver dullness with hiccoughs controlled only by morphia, and on the absence of eosinophiles with 92 per cent. polynuclears.

Notes.—July 22nd. Patient has prolonged attacks of hiccoughs which can be relieved only by morphia.

July 27th.—Has had hiccoughs off and on for the last few days. Colonic irrigations had to be abandoned because of the weak condition of the patient. High enemas in bed were tried but without effect as only a quart could be introduced. Kept pretty steadily under morphia. No effect on the bowels, which moved from fifteen to twenty times a day.

July 29th.—Patient rapidly growing weaker. Anemas stopped. Lead and opium pills substituted for morphia.

July 30th, 8:30 a. m.—Hemorrhage from the bowels. Patient very weak. Bowel movement less frequent during the last twelve hours.

July 31st.—Hemorrhagic bowel movement continues. Patient very weak. Death at 5 p. m.

Autopsy Notes.

July 31st, 9:00 p. m.

Both lungs adherent over posterior part of upper lobes one and one-half inches below apices, showing sclerosed tubercles. No caseation. Heart pale and right ventricle collapsed. Left ventricle somewhat hypertrophied. Abdomen opened and omentum found covering the intestines. Omentum adherent over middle of ascending colon under border of liver. Stomach sagged down toward pylorus; cardiac end distended; pyloric end contracted. Stomach not opened. Small intestine normal from pylorus to caecum.

From caecum to anus the colon was everywhere very much thickened and infiltrated and extensively ulcerated. The ulcers were sometimes as large as a half dollar. Extensive areas of capillary hemorrhage into the wall of the colon were present. On the front side of the middle of the ascending colon was what seemed to be a perforation with dense adhesions to right kidney, omentum, liver and gall bladder. This was under the edge of the enlarged liver. Spleen and pancreas normal on gross appearance. Kidneys, gall bladder, adrenals, prostate and urinary bladder not examined. Bile readily squeezed into the intestines.

Liver enlarged with large dark-bluish blotch covering left half of right lobe. Left lobe extended to left anterior axillary line. Right lobe two and one-half inches below the ribs with gall bladder to the umbilicus. On section an abscess was found a little larger than a hen's egg, one inch above and one and one-half inches to the right of the point where the gall bladder emerges from under the liver. Abscess full of green and white thick, viscid pus and mucus. This has not been examined for amœba.

The Apparent Divorce of Modern Medicine and Surgery, and Some of Its Consequences.

By J. Allison Hodges, M. D., Richmond, Va., Physician-in-charge Hygeia Hospital.

The opinions expressed in the discussion of this subject are offered neither in the capacity, nor in the spirit of a teacher, or a critic. They are the result of an experience, embracing observation of many cases from many capable physicians and surgeons, and are intended to be suggestive

and helpful, and not dogmatic, nor derogatory.

The sole purpose is to aid the profession as a whole, in the proper extension and development of medical and surgical science as practiced today.

In former days, the science of medicine embraced the science of the practice of medicine as well as that of the practice of surgery, but in the advancement of that science in recent years, it appears to me that, unfortunately, there has not been that close union, that intimate sympathy and co-operation between the practitioners of the two branches of the profession that are for the best interests of the development of the science of medicine *in toto*, and for the patients resultantly.

In their enthusiastic endeavors to obtain brilliant results, both medical and surgical practitioners have been more or less unmindful of obligation to their patients' rights, and each has acted more or less individually and separately.

As a result of this competition, so to speak, the surgeon has achieved the most substantial standing for his branch of the profession, and by his audacity, as well as by his skill, he has magnified his branch of the science to the temporary disadvantage of his co-worker in the field of medicine, and by degrees, modern medicine and surgery have become estranged, and apparently divorced.

This would be eminently proper if all cases of disease could be separated into only two classes, namely, medical and surgical, and, further, especially if all surgeons, as well as physicians, could be denominated as wholly capable and efficient, but this classification cannot be justly claimed, nor approved by competent judges.

In regard to the first proposition, the classification of diseases, it is important in order to properly treat a case, whether medical or surgical, and especially if surgical, not only to consider the symptomatic part of the equation in evidence at the time, but also to estimate candidly the future possible developmental features of each case, and this is no easy task for the skilled physician or surgeon, much less the tyro in either branch of the science.

And yet this is done every day, and the patient mercilessly relegated to the one or the other, acting separately and independently, just as the case is determined to be one either of surgery or medicine.

The results are often obvious, for while a symptomatic cure in medical cases, or an anatomical cure in surgical cases may be secured temporarily, yet a disability frequently remains which vitiates the most successful life-saving result.

This is especially true of surgical results, for it is not sufficient, nor, in fact, is it warranted, that a case be simply determined to be mainly surgical, to be operated upon. Much more is necessary; for while it is usually easy, for instance, to differentiate the organically diseased from the nervously diseased, yet it is, in my experience, quite another matter to differentiate the organically diseased patient, who, because of this condition, becomes nervously upset, from the neurotic individual who becomes organically diseased, and still all these factors are of most vital importance, and require the best thought and experience of both physician and surgeon acting conjointly, and in perfect union.

This harmonious co-operation would throw a much-welcomed light on the post-operative statistics of the surgeon's long list of tabulated statistics of abdominal cases of such and such a disease with a given mortality, which are now well-nigh valueless, and show us more clearly the remote, as well as the immediate effects obtained. It would also, as some writer has said, probably light up that twilight zone between the so-called organic and functional affections, embracing the neurasthenic class of disorders, as well as illumine the Stygian darkness of that purely neurotic zone, in which neurologist, physician and surgeon often grope aimlessly, helplessly and hopelessly.

In the next place, in regard to the qualifications of physicians and surgeons, there are distinctively two classes, the agnostics and the diagnostics.

The agnostic physician is the one who reveals his knowledge, or the lack of it rather, by drugs, dopes and demeanor. He looks wise, drugs every symptom, and doses every patient. This type is easily recognizable.

The agnostic surgeon is the operating surgeon, who operates first, last, and all the time. He no sooner discovers some departure from the normal in structure, than he rushes to the rescue. His type is familiar to us all.

The results of both of these classes of practitioners are notable—they frequently score, but they more usually fail.

On the other hand, the diagnostic physician, just as the diagnostic surgeon, approaches each case with caution and care, calling to his aid every facility furnished by his skill and experience, both in practice and in the laboratory.

But just here, to my mind, comes the fatal error to the patient and the profession alike; for, while they work enthusiastically and scientifically, still they work single-handed and unaided.

American medicine and surgery have a just right to be proud of their achievements, but to advance more adequately the essential purposes of medical and surgical science, there must be mutual interdependence and co-operation. Even the best in either branch must admit that they are not infallible, and that not absolute efficiency, but only a reasonable degree of it, can be expected of them; for if they are honest, they must admit that the masters of medicine and surgery are few in number.

As a matter of fact, however, this is a difficult and disappointing view for most of us to assume, and rather than to admit it, even to ourselves, we prefer to fight single-handed the battles that daily arise, oftentimes forgetting that it is not all of medicine to drug, nor all of surgery to operate.

In the new "physiologic" era which is to succeed the present, or "pathologic" era of medicine, we are to take less care about the entrance of possible germs into the system, and much more care about keeping the patient in such a condition that he can resist them, if they do get in, and to this end we will need the freest co-operation of both physician and surgeon for the fullest development of our beneficent science.

Unquestionably, to me, the apparent divorce of modern medicine and surgery is largely due to one factor, which, while it has probably done more to give us an intimate knowledge of certain lines of the science than anything else, yet has its serious consequences and disadvantages. What, then, is this factor? I believe it can be summed up in the one word, "specialism," and I believe, further, that when conscientiously, and carefully, and thoroughly understood and studied, specialism has as many disadvantages, probably more, than it has advantages.

What are some of them? One of them is the undeniable fact that men, unprepared by sufficiency of knowledge and ripe experience, rush too precipitately into the different specialties of medicine, and as a result they are not prepared to cover the broad domain of the science.

It is also a fact that many of the specialists who go into the different branches, while they have added infinitely to our intimate knowledge of these branches, have, because of their limited study in a certain direction, become biased, or in other words, many of them have become "faddists," and can see nothing outside of their special line of work.

It is also true that there are many "specialists" who are not specialists, and it is not unbecoming in us, I feel, to caution the young men who go so largely and so rapidly into the different lines, to prepare themselves well by a thorough study of the whole human anatomy and physiology, as well as pathology of the system, before they limit their work along definite lines. Again, the physician, as well as the surgeon, naturally has not the ability nor the time, to cover the broad expanse even of the field of medicine on the one hand, or of surgery on the other. What is the result? Naturally you may have a brilliantly equipped medical man, and yet it is absolutely impossible for him to be skilled in surgical diagnosis. On the other hand, you may have a man highly skilled and equipped in surgery, in surgical knowledge and dexterity, and yet wanting in the broad essentials of the knowledge of the practice of medicine. Consequently, you can understand very easily that if we wish to accomplish the best results, there must be an inter-dependence between the physician and surgeon in getting the clearest diagnosis, and resultantly, the best lines of treatment for their patients.

It is a fact, too, that the one on the one side, as well as the one on the other side, becomes biased in his prognosis, as well as in his diagnosis, and that oftentimes both the physicians and the surgeons become nihilists to the therapeusis of the opposed party, as we may term it, and the physician thinks that the surgeon can accomplish nothing, as the surgeon thinks very often that the physician can accomplish nothing. This is obliged to result in ill effects for the patient, who has certain well defined rights, for which we ought to have the sincerest regard. It is also a fact that neither one, as a rule, follows the case from the bedside observations along, say, to the operating table, to see whether his diagnosis is confirmed or not, or sometimes to the autopsy table, to see whether or not his diagnosis and prognosis were well-founded. Surely, then, unless we have co-operative work which is directed all along the line, and confirmed or not confirmed, we cannot be definite in our diagnosis, and we do not learn from the case in question as much as we should.

It is also true that these opposing ideas as to therapeusis held by the medical man and the surgeon, lead at times to deplorable results, and often to chronic invalidism in a number of patients, who could be saved that terrible wreck of their lives in the future. I need not pause here one second to dwell upon this, because it is too familiar to you all. I am able, however, to say this —that the exploratory incision, often, of the operating surgeon, and the "horse-back" guess of the practicing physician, would be largely done away with today, if we recognized that the physician doesn't know it all, just as the surgeon doesn't know it all,

and that if they worked hand in hand, and shoulder to shoulder, for the best interests of their patients, they would consult about these cases, and not let the inevitable result which is noticeable to me today follow. What is that result? It is this—that in the great number of cases. the patient himself, these days, is getting to be the diagnostician, and he is saying whether his case should be referred to the physician or to the surgeon. Now, I believe we are largely responsible for this very state of affairs. It has been frequently noticed, I am sure, by many of you, that when the physician and surgeon work independently of each other, that the diagnosis often of the same case, referred first to the one and then to the other, is different, hence the skepticism of the patient. Now, I cannot believe that if the true spirit of co-operation existed, that this could be true, because if the medical man knows what he should know, and the surgical man knows what he should know, and each worked in harmony with the other, certainly it would be the same diagnosis in the same case. I believe we are led away too often by the fact that we wish only to determine whether it is mostly a medical case, or mostly a surgical case. We are not after an exact diagnosis, and that you know, in the advancement of medicine, is what the specialists were created for, and, acting jointly, should be able to secure.

Frequently, also, because of the non-co-operation of the physician with the surgeon and the surgeon with the physician, many of the most important details and facts bearing on the future of the patient, as to operation or non-operation, are neglected by the surgeon, especially when he overlooks the question of heredity, or when he overlooks the question of individual constitution, of which he can know but little when the case is new to him.

When he overlooks, furthermore, the question of the individual temperament, which I believe every surgeon ought to be thoroughly familiar with, so as to know the resistant and non-resistant tendencies of his patient, he is culpable. for I believe this method of rushing precipitately and hastily into an operation, without all of these collateral antecedents, which are of such importance to the future of the patient, and, often, without previous needful preparation, is as often unwarranted, as it is unnecessary.

I am aware that laboratory methods in the advancement of our profession have taken a very high place, but I wish to say that, from my experience, laboratory methods, unaccompanied by close clinical observation, do not make diagnoses that are confirmed upon the operating table, and I repeat that we should not go mad with the idea that the laboratory tells us everything and that its methods are perfect, for in every case we should bring to bear common sense and sound judgment in our analysis of them. And, besides, it is a fact that simple exploratory incisions are not so harmless as would usually be supposed. Many of you know that even exploratory incisions in certain diseases lead to metastases that are irremediable by the surgeon's knife or tae physician's pills, if that incision is left open even for a few days; and another thing, many a time these incisions direct a patient's attention to himself, which is unavailing to the patient, and is, indeed, exceedingly harmful in a majority of these cases. All of us will grant, I believe, that intimate pathological knowledge is absolutely necessary in the practice of medicine, and yet I believe it is more important even to the surgeon than to the physician, and while I wish not to condemn these researches or methods, yet I would urge that they be applied not only to the gross specimen, but to the microscopic specimen, and that final judgment should be made up, upon the data elicited, only when a well-balanced judgment has been brought to play upon them at the bedside.

I would add, also, that the question of the mental impression, both medically and surgically speaking, in many of these cases, when we make a wrong or inexact diagnosis, is of far more importance than we would ordinarily judge. In short, specialism often divides the responsibility, and the patient suffers; for neither the physician nor the surgeon feels the interest, nor the intimate desire to aid the patient, that both of them combined, and working harmoniously together, would do. What is the remedy then? Are physicians and surgeons coming closer together in their work these days? Is either profession capable of treating alone many of the common diseases that come to us? Is it to the patient's best interest, in other words, that this state of affairs should be brought about? Unhesitatingly, I answer affirmatively, for there is often a woeful lack of similarity between the diagnosis of the physician and of the surgeon in the same case, frequently due to a lack of proper knowledge on the part of each, as well as proper study, together, of the case in question. The surgeon frequently fails to study his case thoroughly beforehand, and the physician as often fails to follow his case to the operating table to see whether or not his diagnosis has been confirmed by the incision of the surgeon.

I wish to mention very briefly in conclusion, that the "operative" surgeon is, I believe, today, passing out from being es-

sentially an operative surgeon. The skilful diagnostic surgeon no longer operates for every tumor, benign or not, as it comes, because the tendency of modern surgery is more conservative than ever before. Radicalism is becoming a thing of the past and is rapidly fading away before the greater and more exact knowledge of the surgeons of today. But I do say, that because of lack of thorough study of the cases, jointly, many cases of ovaritis, abdominal neuroses and appendicitis, if you please, are operated upon when they are not those diseases, but are reflexes from some other cause. Furthermore, when we get this exact co-operation, we will not make these mistakes, because we will then know, for instance, how much neurotic element there is, and how much real pelvic pain. In other words, we can sort out and deal with the evidence of pelvic pain, and the physician can help the surgeon in his desire to be conservative and constructive, and not radical and destructive.

In conclusion, I believe that all of us, physicians and surgeons, wish and strive only for the best results for the patient, but in our desire to be one-sided, and all-powerful, as it were, we run off too much into specialties, and wander away too far from each other. We should come back and get closer together, both for our own and for the patient's benefit. Many a time the surgeon may make an anatomical cure, may remove a pathological lesion, but even then it is just as necessary and just as essential that the referring physician should continue to treat the patient before a permanent cure can be effected, for many of these cases require not only the treatment of the lesion, medically or surgically, but also the medical and psychic treatment of the patient, and to get the best and most lasting results we must have, even unto the end, hearty co-operation, and an united interest, both in the primary diagnosis and succeeding treatment, on the part of both physician and surgeon.

The Care of Post Operative Cases.

By Henry Norris, M. D., Rutherfordton, N. C., Surgeon to The Rutherford Hospital.

As the title of this paper implies, it has to do with the care of post operative cases, but necessarily much of this care must begin before the operation, and I propose to briefly outline the methods used in The Rutherford Hospital, prior to and after operative procedure. The day before operation drachm doses of salts are given every hour until the bowels have been freely moved. When possible the patient is given a full bath, followed by careful preparation of the operative site. To insure a good night's sleep, Trional grs. x is always given. In the morning the patient receives a simple enema of soapsuds and a second preparation. We always begin to operate as early as possible in the morning, as by so doing the patient is saved the nerve racking waiting and often the tearful farewells of the family; the surgeon and the nurses are cleaner than later in the day. It is all important to have a skilled anæsthetist at one's command who is to be trusted with the administration of nitrous oxide gas, ether, chloroform or ethyl chloride as we may elect; who will reassure the nervous patient and gain their confidence as well as attend to the various pre-anæsthetic details, such as seeing that the table is properly prepared and that the patient is sufficiently clothed and covered. It is our practice to invariably give a hypodermic injection of morphine sulphate gr. 1-8—gr. 1-4 fifteen minutes before the anæsthetic is commenced and it is better in patients who are nervous to anæsthetize them in bed and carry them to the operating table. My own preference is for ether as the anæsthetic of choice though I have used scopolamine-morphine anæsthesia in some fifty cases with excellent results and I believe that its use is indicated in certain cases. No time should be wasted by the surgeon when the patient is brought in the operating room and his procedures should be as rapid as is consistent with good, clean, thorough work, as shock is unquestionably increased by operations unduly prolonged, just as nausea is increased by large amounts of ether. It is not at all uncommon in some of the large clinics connected with teaching institutions to see a patient fully anæsthetized and kept waiting for ten or fifteen minutes whilst the surgeon talks, or to see him stop in the midst of his operation to explain or dilate upon some condition which he wishes to make clear. Except in those cases requiring drainage I use a very small, light dressing, consisting of about four thicknesses of gauze, secured by narrow strips of zinc-oxide adhesive plaster. On the patients' return to bed any damp clothing is immediately removed and until the patient has regained consciousness they are watched every moment by a skilled nurse who is competent to take the pulse intelligently and to note and record symptoms. When morphia has been given beforehand and ether properly administered there is not apt to be much nausea, when it occurs, however, it can often be relieved by raising the patient's head a little or by giving inhalations of vinegar or sips of very hot water. We expect the patient to complain of pain in the wound, which is usually of a burning character and passes off in the course

of a few hours if the sutures have not been tied too tightly; of thirst, for which cool water should be given frequently in small quantities; of backache, which may be made more bearable by turning the patient from side to side, rubbing the back with alcohol and by the proper adjustment of pillows. Six or eight hours after an ordinary abdominal operation the patient should be fairly comfortable and long continued expressions of pain should cause us to make sure that everything is as it should be. A too tight or uncomfortable dressing is sufficient to keep a patient awake all night. I think it is advisable not to give the patient morphia when they are conscious unless we are convinced that they are in actual pain. I do not believe in using the catheter until the bladder is actually distended and causing pain. At the end of twenty-four hours food is given in liquid form; buttermilk or thin broths, and the feedings are increased in frequency and amount until the third day when the patient receives solid food entirely. If the bowels have been thoroughly emptied before operation, about the third day is soon enough for them to move and they are encouraged to do so by a simple enema. Tympanites may often be relieved by the introduction of the small rectal nozzle of a fountain syringe or by an enema. I have never gotten any results from any of the drugs supposed to increase peristalsis, such as eserin, atropine, phenolphtalein, etc. I think that it is the surgeon's duty to see his patients as often as he can during their convalescence and if they are complaining to endeavor to find out the cause of their pain and not merely attribute it to nervousness or crankiness; a few cheerful words and a little moral encouragement will often work wonders. Of course no hard and fast rule can be made as to how long patients should be kept in bed, but I think that the practice of getting laparotomies on their feet inside of a week cannot be too strongly condemned. It is a well known fact that old people do not do as well when confined to bed for a long period of time, and we also know equally well that many surgical cases are very much benefited by a rest of three or four weeks after operation. My own feeling is that when a surgeon discharges a patient that patient should be in a condition to take up their ordinary duties instead of being obliged to take a prolonged "rest cure" at home as is so often the case.

Perinephric Abscess—Report of Two Cases.*

By T. E. W. Brown, M. D., Asheville, N. C.

Mr. President and Members of the Society:

The subject of my paper is "Perinephric Abscess." I desire to briefly refer to the anatomy of the kidneys, then review a few of the causes of perinephric abscess and to briefly run over the symptoms and course of the disease.

The anatomical relations of the two kidneys are very numerous and interesting, and unless they are borne in mind by the physician he will be at a loss to explain many symptoms, and will be slow in arriving at a diagnosis, with consequent delay in providing proper treatment.

Each kidney rests on the lower part of the diaphragm, Quadratus Lumborum and Psoas Magnus muscles, with anterior layers of lumbar fascia intervening. The last dorsal ilio-inguinal and ilio-hypogastric nerves pass outward behind each kidney. The colon is in relation anteriorly with both kidneys. The right has the descending duodenum along its inner margin anteriorly, while the left is in partial contact with ascending duodenum. The right is also in close relation with the liver along the upper two-thirds of its anterior surface, while the upper part of the left is in relation to the stomach. The tail of the pancreas is related to the middle third of the left. Each kidney is partly covered with peritoneum. The vessels to the colon lie between the kidney and the colon. The right renal veiu is very short, while the left is very long. The common bile duct is at a considerable distance from the inner border of the right kidney. Each kidney is surrounded by a mass of fat, which is more or less enclosed in its proper capsule; being open below the renal fat is continuous with that of iliac fossa. The blood and lymph supply of the kidney and its fatty capsule are continuous.

The Causes of Perinephric Abscess.

Disease of the kidney itself is the most common cause of suppuration in perirenal tissue; tuberculous and calculous disease furnish the greatest number of cases. Suppuration may also extend to the perirenal region from other organs and tissues, as, for example, disease of the vertebræ appendix, liver, gall bladders, or it may be of pelvic or thoracic origin. It may also occur as a result of metastasis from any source of infection. Typhoid fever, gonorrhoea, influenza, measles, etc., furnish a certain number of cases.

Injury to the region is a common cause.

*Read before Buncombe County Medical Society April, 1909.

The reason for this is that the blood and lymph supply of kidney and perirenal tissue being continuous infectious material escaping through the urine finds a place of least resistance in the bruised and contused perirenal tissue. This class of cases is very interesting, because the injury may be overlooked and urinalysis is negative.

Symptomatology.

When the suppuration is secondary to the disease in the kidney, there are first the symptoms of that disease; later, there are those of the suppuration itself, and these may be divided, first, into those common to suppuration anywhere, and, second, those due to the anatomical location of the process. The suppurative process may here, as elsewhere in the body, begin violently and pursue a severe course with the rapid development of a large abscess and septic symptoms. It may begin mildly and pursue a slow course, requiring several weeks to produce fluctuation. Pulse, temperature and blood count indicate suppuration.

Special Symptoms.

The anatomical relations of the kidney to the diaphragm will account for painful inspiration, resembling the pain of pleurisy, will explain painful cough and the development of pleurisy with or without effusion. The fact that the last dorsal, ilio-inguinal and the ilio-hypogastric nerves pass down behind the kidney explains the pain in the hip, flank, groin, scrotum, testicle and thigh. The rigid spine is explained by the kidney resting on the quadratus lumborum muscle; the flexed thigh by the relation of the kidney to the psoas magnus muscle. A left abscess can cause painful accumulation of gas and fæces in ascending and transverse colon. Constipation may be very obstinate, even alarming.

Diagnosis

May be very easy or very difficult. I will not go into detail, but will quote Ransohoff in describing the local features: He says: "First, the swelling is behind the kidneys and even when very large does not approach the anterior abdominal wall. Second, the swelling is diffuse and without well-marked limitations which belong to the enlargement of the kidney. Third, the swelling is uninfluenced by respiration. An inflammatory cutaneous œdema makes the diagnosis certain."

Treatment.

Incision and drainage for the primary cases is sufficient. For the secondary cases, the condition of the kidney demands its proper treatment.

The first case I have to report is as follows: Male, 36 years old, harness-maker by occupation; family and previous personal history negative; non-alcoholic. Six weeks before I saw him, while hanging a set of harness on a peg, the box on which he was standing turned over, causing him to fall across the edge of it, striking his left loin. He continued to work for ten or twelve days, when he had a slight chill, associated with pains in the region of the left kidney. From this time he began to lose appetite, flesh and strength, and he thought that he had fever at times. Four weeks after he received his injury he discontinued his work, but was not confined to bed. He had lost thirty pounds in weight, at which time I saw him. Examination shows a strong man, reduced by emaciation, with a stoop and a limp, and complaining of slight pain in the region of the left kidney, in which region there is to be seen a slight fullness. Heart and lungs normal. Bimanual examination reveals a deep-seated swelling in the region of left kidney, tender, and uninfluenced by respiration; no constipation or vomiting, no reflected pain.

Treatment.

Incision and drainage with prompt recovery.

The second case is far more interesting, and at the time very obscure. This patient was twenty-four years old, strong and active, slightly given to alcohol, with no history of gonorrhœa. He had just begun to recover from a severe attack of acute productive nephritis which had its possible cause in alcohol, fatigue and exposure to cold and wet, at which time he also received a slight injury to the left flank. About ten days after convalescence from his nephritis had begun, when there was no fever, and all œdema of feet and face had disappeared, and the patient was out of bed, he was suddenly seized with a severe pain in the left flank, accompanied by a chill and vomiting; there was intense desire to urinate associated with agonizing pains in the head of the penis. I saw this patient at 2:00 a. m., about six hours after the chill. The bladder had not been emptied for about eight hours. Not having a catheter, hot water was applied and a small amount of cloudy urine was passed, affording considerable relief. The next morning, retention and pain still persisting, a soft catheter was introduced and about twenty ounces of urine was withdrawn. This urine was filled with pus. From this time on, for about forty-eight hours, the catheter was required every four or five hours on account of great pain in the bladder, associated with an intolerable desire to pass water. The temperature during this time was about 102, and patient was very sick. Catheterization

with irrigation was continued at intervals of six hours for forty-eight hours longer, at the end of which time there was very slight, if any, complaint. The temperature had dropped to normal in the morning with a slight afternoon rise. At the end of forty-eight hours more the patient was able to voluntarily void his urine with but slight pain. During the second week, pains in left flank became more prominent. Bimanual examination painful, and giving an indefinite sense of resistance in region of kidney. Patient was allowed out of bed because there was very little temperature during the evening, though urine still very cloudy. Through the second week, temperature gradually rose and persisted with fluctuations throughout the twenty-four hours, patient steadily growing sicker, though pain in left flank not much increased. He was greatly troubled by accumulations of gas in the ascending and transverse colon which caused considerable pain under the margin of the ribs on the left side. Constipation obstinate. All catharsis increased the pain, and purgation was followed by marked prostration; there was a limited area of tenderness below the tip of the twelfth rib.

At the end of eighteen days, operation advised, though not accepted until eight days more. On the 27th day from his chill, under chloroform anesthesia, incision made down to the kidney, revealed a thin lay er of blistered brownish fat surrounding the kidney and enclosing about a pint of pus. The kidney was greatly enlarged, measuring six inches in length, by three and one-half in thickness; capsules very tense, and when it was delivered and incised, the entire cortex everywhere was filled with pus, as was also the pelvis of the kidney. After several incisions and failing to find healthy kidney, it was removed.

On his return to bed, the bladder was washed out and from that time on no more pus appeared in the urine. Patient passed thirty-seven ounces of pus during the first twenty-four hours; sixty during the second, and forty-two during the third; temperature reached normal on the third day.

Two years have passed and patient has returned to his occupation of traveling sales man.

At times there is a trace of albumin in the urine—otherwise he enjoys perfect health.

These two cases are fair examples of the great variation that may exist in the etiology, treatment and prognosis of perinephric abscess.

References:

Gray's Anatomy, Osler. Ransohoff, Tyson.

Eczema.

By Albert D. Parrott, M. D., Kinston, N. C.

Eczema is an inflammatory disease of the skin, of which we find the acute, subacute, and chronic forms, depending on the duration, &c. It is usually attended with some itching, exfoliation, or shedding of the cuticle, and usually with the exudation of serous, or seropurulent fluid which is found upon the denuded surface, or beneath the cuticle. Very often we find in one case, erythema papules, vesicles, or pustules, and its lesions evince a decided tendency to coalesce, and thereby form large infiltrated areas.

Symptoms.—I should say that eczema is decidedly a protean disease. I once heard my Professor remark that if a student has thoroughly mastered Syphilis, and Eczema and their respective treatments, that he practically held the key to the rest of Dermatology in the palm of his hand. To my mind this is in a great measure true. Although as yet we know only the elementary principles of these two diseases, and just a smattering of their Symptomatology and treatment. We really know nothing of the pathology of either. Every case of eczema will present one or all of the following prominent symptoms:

(1) Redness.
(2) Infiltration.
(3) Itching.
(4) Tendency to moisture.
(5) Crusting, or scaling.
(6) Fissures, or cracks in the skin.

This disease may, and often does begin without any marked constitutional disturbance. We sometimes find accidental fever, malaise, anorexia, &c. Commonly the first thing that attracts the patient's attention is itching, and upon inspection we find the skin slightly reddened, it may be scaly, papules scattered here and there, or vesicles and pustules may be present, and sometimes just a slight exudation of moisture, or weeping is found. There is a great tendency for all forms of eczema to segregate in various size patches, with more or less infiltration, ill-defined, and shade off almost imperceptibly into the surrounding skin, so that it is exceedingly hard at times to say where they end, with the outlying lesions adjacent to them. Their shape is irregular, of many sizes, sometimes very diffuse, and involving nearly the entire cutaneous surface. Sometimes they are swollen and of a dark red color, at times they are tinged yellow. Starting with a few leisons, they multiply with more or less rapidity, the individual lesions coalescing and patches are thus formed. It may be quite evanescent clearing away in a short while, or many weeks or months may elapse, or it may become

chronic, showing little or no tendency to recovery. There is no rule of constancy in regard to the course of the disease, though at times we encounter cases that occur and recur with remarkable periodicity, at certain seasons of the year. It may be in the summer. spring, autumn, or winter. Any or all parts of the cutaneous surface may be invaded, but it seems to have a special predeliction for the flexures of the joints, the face, the scalp, and the sulcus behind the ear. We may find only a single patch, or there may be many. It is found on both sides of the body, but with no decided symmetry. The principal subjective symptoms are itching, which is present to a greater or lesser degree in all forms. and which is often so annoying as to cause the subject to excoriate the skin by vigorous attempts at scratching. It is extremely prone to exacerbations and remissions. The sensation of burning, and tension are noticable for the most part in the initial stage of the attack, or sometimes during an exacerbation of a subacute, or chronic case. It is generally conceded that there exists five forms of this disease. They are called erythematous, papular, vesicular pustular, and squamous. The erythematous form is dry throughout its entire course, and it may be well to state right here that this form is the only one whose characteristics, course, ultimate results, &c., is clear cut, and unchanging. The other varieties mentioned above are subject to many alterations, appearances, very erratic, and at times produce a peculiar symptom-complex to deal with.

Eczema Erythematosum.—This is most frequently seen upon the face of adults though it often occurs elsewhere, and frequently in children. It commonly begins as one, or several ill-defined red patches, but by virtue of the coalescence of smaller ones, a continuous patch is formed. Sometimes the entire face is invaded, generally only a portion. Often the inflammatory process is attended by marked edema of the eyelids, and at times assuming a dangerous phase. I can recall one case, where the corneal surface was invaded extensively, by continuity of surface producing corneal ulcers. This is extremely rare. The individual experiences great discomfort on account of the burning and stiffness of the skin. The face feels harsh, dry, and thickened. If it occurs in the folds of the skin, slight moisture may be present. It is exceptional for vesicles to develop. After a varying length of time the symptoms may subside, and complete recovery take place, the lesion fading away, completely, and not in the centre alone. On the other hand, it may assume a chronic form, and continue as a tormentor for years.

Eczema Papulosum.—When eczema was first written about, this was called lichen simplex, on account of its slight resemblance to lichen. It consists in an eruption of rosy-red, pointed, or acuminated, discrete, grouped, and sometimes confluent papules. The papules are sometimes surmounted by vesicles which remain discrete, or later confluent: This is perhaps the itchiest of all varieties. Great excorations consequent upon scratching occur. This breaks down the vesicles of course, and gives exit to the serum, and converts it into a moist patch. This variety is generally found on the extensor aspects of the limbs. It is often rebellious to treatment.

Eczema Vesiculosum, is the most common, and most characteristic form, and consists in a variously sized eruption, rounded, pointed vesicles, that appear on a reddened surface in immense numbers. A mild tingling usually precedes the outbreak. There is intense itching, and more or less swelling attends it. The vesicules are arranged in groups, which sooner or later coalesce, and rupture of themselves, and discharge a clear mucilaginous fluid, which has the quality of stiffening, and staining the linen, and on drying, forms a yellow crust. The physician rarely sees the vesicles, in fact because they rupture so early. Then a crop of new vesicles form about the old patch, these in turn rupture early, discharging their contents, with more crust formation. And so the process continues. When the crust is removed a raw surface is exposed. Eventually the discharge ceases, the hyperaemia lessens, scaling takes place, and after a time skin reforms and returns to the normal. This form seeks parts of the skin, flexures of joints, flexures surface of limbs, behind the ears, &c.

Eczema Pustulosim.—This variety occurs in the more or less broken down, cachectic, or those of the strumous diathesis. This is the most common form of eczema seen in childhood. In them it occurs by preference on the face and head. The eruption consists of pustules from the beginning, or it may develop from vesicles. The pustules have a tendency to break down, and discharge, which when dried forms foul greenish crusts, which is very revolting, when the scalp is diffusely matted. At this time the poor sufferer is rendered almost crazy, though it is not so itchy as some of the other forms.

Eczema Squamosum is the final stage through which most of the cases pass on their way to recovery. The skin is very dry red, and covered with thin parchment, or paper like scales. It may continue this way a long time, with occasional exacerbations. Then it may pass away entirely, and the skin return to normal. In this condition it

is very easy from some local injury to light it up again. In this form the skin is thick, indu.ated, and presents a leathery appearance, and about the joints, it cracks at times, showing that its usual amount of elasticity is interfered with, when the joint is extended.

Etiology.—Very much like its symptoms, its causes are legion. It often arises from purely local causes, but even then, we must assume that there is some predisposition to it, on the part of the skin. We often see it on the hands of washerwomen, carpenters, and constituting what is known as TRADE ECZEMA.

Perhaps for a score of years they washed with the same soap and water, and used the same plane and saw, without any manifestation of eczema. Then under the same local conditions, but with some unknown internal constitutional state an eczema supervenes. Generally speaking the external irritants that most frequently cause czema, are the sun, water intense artificial heat, acids, alkalies, traumatism, rubbing of opposed surfaces, parasites. in fact anything that will produce a dermatitis, but the process does not stop as a simple dermatitis, but goes further, and a catarrhal condition of the skin results. It has been frequently observed that children with eczema grow markedly worse as the mercury descends, showing that cold has an undoubted influence for the worse. Vaccination has acted as a local cause. Of the internal or predisposing causes, perhaps the most common and active is some disturbance of the gastor-intestinal tract—as indigestion, dyspepsia, mal-nutrition, or some hepatic, or renal disorder. Diabetes Mellitus, and nephritis are both common causative factors. Occasionally we will see cases that have a purely nervous origin, and recover immediately when the proper equipoise is established. Rheumatism, gouty diathesis, varicose veins, &c., are other pre-disposing causes. I am also quite certain that the anemias are frequent etiological factors. And with all these probable internal causes. nearly every case dates its beginning co-incident with some exciting external cause. The disease of course attacks all ages, races, conditions, both sexes and is the dermatosis we are most frequently called upon to treat, This is the incentive for writing this article. It is very common in infants and children. In Buckley's tables, out of 3000 cases, 676 occurred under five years of age, and of these, 520 were in children uuder three years. Of the remaining cases 1234 were between the ages of twenty and fifty, and were divided about equally in each decade. Nearly one-third of all skin cases are eczema. Unna declares that it is due to an undiscovered parasite.

Pathology.—There is really less known about the pathology of eczema, than there is about the pathology of Syphilis. Suffice it to say that eczema is a catarrhal inflammation of the skin, similar to that of the mucous membrane, which has its focus chiefly in the papillary layer of the skin, and the rete mucosum. The process being superficially located, is the reason why there is so little scar-tissue formed when the inflammation has subsided. It is generally conceded that a tropho-neurosis is mainly responsible, when not due to local irritation.

Diagnosis—A positive and differential diagnosis would consume too much space for an article of this kind, but if the six cardinal symptoms are kept in mind we will not often go astray. Redness, itching, infiltration, or thickening, exudationor, a tendency to weeping, crusting or scaling, cracking, they will be a great aid in the diagnosis. Add to them the tendency the diease evinces to locate in the folds of the joints between opposed surfaces, behind the ears, and the mucilaginaus quality of the exudate, which stiffens, and stains linen, and mate hairs together. Indeed a diagnosis of eczema will fit one out of every three such cases.

Treatment.—While some cases arise from purely external causes and require only external treatment, but in the vast majority of cases the patients general condition is not good, and he needs treatment quite separate and distinct from his skin disease. In fact we should regard the bulk of our cases as a sick man rather than a sick skin. If the patient be anemic he should have iron, plenty of fresh air, and moderate exercise. The metabolic flame cannot burn without proper and sufficient fuel, i. e. nourishing food. This fuel cannot be consumed without enough oxygen. Oxygen cannot be carried to the bodily fuel without sufficient iron-bearing hemaglobin. If he is of the strumous type, codliver oil is indicated, To our nervous patient give appropriate doses of strychnia, hypophosphites, and other good nerve bracers. Indigestion needs the mineral acids, Nux vomica, pepsin, bismuth, soda, &c. Those with internal diseases need appropriate treatment. Where there is rheumatic tendency the acetate or potash, or the phosphate of sodium are indicated. Give colchium, or colchine for gout. lithia is also excellent. All the emunctoris should be kept functioning properly. There is no specific for eczema, each case should be carefully studied, and treated accordingly. In treating eczema in all its stages rich gravies, stimulating foods, con-

diments like pepper and salts, sauces should be absolutely interdicted. This is especially true in regard to alcoholic beverages. I don't suppose there was ever a case of eczema cured where the patient indulged in alcohol. I have seen cases of diffuse indurated eczema of the scrotum get entirely well, and one glass of beer cause it to return in one night, with increased severity. So alcohol is to be let entirely alone in treating this malady. Tea, coffee, and chocolate are best let alone. Tobacco is harmful in some cases. Constipation must be relieved. If we have to give medicine for this, a combination of aloin, Nux vomica, and belladonnæ, the pills of iron and aloes, and ext. of Rhamnus Purshiona, are good. Arsenic is a time honored remedy whose curative virtues are as old as the hills. It is good only in some chronic scaly cases. In acute eczema it is very harmful. It is best not to prescribe it at all. Sometimes phosphorus one hundredth grain to one twenty-fifth grain either in pill or oil, is useful in long standing eczema. There are no internal specifics for eczema. What will cure one case will actually aggravate another.

Local Treatment.—There is one iron-clad rule we can always follow with success in the local eczema. It is as follows: In acute cases where we have heat, swelling, redness, &c., employ soothing remedies: In subacute cases where the swelling has subsided, and where papulation, vesication, pustulation, or exudation is more or less active, use astringent, and slightly stimulating remedies: In chronic cases where we find thickening with scaling, stimulate in all cases, and protect the skin. This rule is infallible, and should always be kept in mind. Water must in all cases be kept away from eczema. Where it is desirable to loosen the scales a little olive oil should be employed. Very hot water may be used at times on chronic indurated types, then very sparingly. It appears to be quite irritating. In acute eczema of course soothe, Liq Calcis, Plumbi Subacetatis dil, solutions of borax and soda are good. Dust with corn-starch bismuth, Lycopodium, or French chalk. Where there is severe itching carboiic acid may be used, incorporated in Ungt about Gtts X to the ounce. Dr. Starten recommends the following:

℞

Zinci Ozide ½ drachm.
Pulv Calamine prep 2 drachms.
Glycerine 1 oz.
Liq Calcis 7 drachms.

When the acute stage has about passed and a sub-acute condition is present a protecting and soothing Ungt is to be used and the best to be obtained is the benzoated oxide of zinc ungt. If the case is one in which there is much tendency to moisture as in the pustular, and vesicular eczemas—Lassar's Paste is better than the zinc oxide Ungt. Being a paste it allows the discharge to percleate through it. It is made as follows:

℞

Zinc Oxide,
Amyli a 2 drachms
Vaselinil 2 oz.

Ten or fifteen grains of salicylic acid added to the above greatly increases its anti-pruritic quality. Ungts are generally objectionable on account of their greasiness, and oleaginous character, and where possible it is much pleasanter to use lotions, especially in refined people and around the genitals. The following is very good.

℞

Calami 1 drachm,
Zinc Oxide ½ drachm,
Glycerine M XV,
Liq Amydlae 1 oz.

Where pustulation is marked Peroxide of Hydrogen exercises a beneficial effect. When the acute symptoms subside Diachyol in ungt is excellent. It is never advisable to begin treatment too boldly. If after faithfully employing our protective, and astringent agents in the subacute variety and yet no results are obtained, we should begin a stimulating treatment. The most reliable one is tar, adding it at first in the proportion of about fifteen drops of the oil of Cade, to the ounce of ointment-base, such as oxide Zinc Ungt. We always need stimulation in the chronic squamous eczema to whip up flagging circulation, and to produce absorption of infiltration of the skin, and to promote a return to health. Here tar is our sheet-anchor, and should be classed as the Prince of skin-stimulants. It can be used in various strengths and ways. We may use the oil of cade, oleum cadini, the oil of birch, oleum rusci, or pixliquida. The oil of cade is most used. I prefer the ungt:

℞

Ol Cadini ½ drachm,
Zinci Oxide ½ drachm,
Ungt Aqua rosae q. s.,

or the cade may be added to the oxide of zinc ungt in the proportion of a drachm to the ounce, or pix liquida may be substituted in about the double strength. Sulphur in my experience ranks next to tar as a stimulant in squamous eczema. It is not as reliable as tar however. It is most useful in circumscribed patches, and may be used in vaseline or simplex ungt in the strength of one to two drachms to the ounce. In some very sensitive skins it produces a good deal of dermatitis. I have used green soap with varying success, but do not attach much im-

portance to it. Many attempts have been made to find a suitable substitute for greasy or oleaginous applications in the treatment of skin diseases. For instance we have Dr. Unna's plaster mulls, in which plaster mass is incorporated with the mulls. I have not used the above however. In treating eczema we should not be content by simply telling our patient to daub or smear the medicine on any "old way", but should instruct him in the way he should use it. Our Ungts should not be smeared on the skin, but nicely and evenly spread on linen or or muslin, and bound down with a snug bandage, or with a ring of elastic webbing. In all chronic patches it is well to rub in our tar and other ointments.

Suffice it to say in concluding our remarks on the treatment of eczema that there is no one drug, or combination of drugs embodying all that is desirable in the treatment, or ultimate result, but each case, is a case unto itself, and is to be considered so, and treated accordingly, to obtain the best and most brilliant results.

Prognosis.—Paradoxical as it may seem some cases are never cured. So we cannot always give absolute assurance of curing eczema. We sometimes are forced to accept the fact that some individuals are "3czematons", and to cure them, regeneration is necessary. Of course it is our duty to cure our cases as fast as possible, and not take refuge behind the incompetent man, and tell our patients that we are endangering their lives by curing their eczema.

Surgery and Surgical Literature of the Eighteenth Century.*

By T. E. W. Brown, M.D., Asheville, N. C., Chairman of Section of Surgery and Anatomy.

Mr. President, Guests and Members fo the Society:

On occasions like the present it is the custom to discuss new theories and methods, and to lay plans for the future; for this reason we are apt to forget those who have preceded us, and have laid the foundation for modern surgery.

Before we give our attention to the papers dealing with modern surgical problems I desire briefly to call your attention to the surgery and surgical literature of 1700, so that when we reflect on the great difference between now and then we will not fail to give due credit and honor to the men who have made this growth possible.

In 1700 William III was King of England, a wise and just man, who spent most of his time in conflict with Louis XIV. Russia, under Peter The Great, had just taken her place as a power in Europe. Sir Isaac Newton, Christopher Wrenn, George Fox and John Locke, were prominent men. Swift, Pope, Dryden, Congrove, Prior and Steele belonged to this period. The habeas corpus act and bank of England were each about forty years old. Cromwell had been dead nearly forty years.

In 1700 The Art and Science of Surgery included very little more than the Doctrine and Treatment of Wounds, Fractures, Luxations, Tumors and Ulcers, with a description of Operations, Instruments and Bandaging. This division was common for many years later than the date under consideration. About this time the practice of lithotomy was taken over by the surgeons under the leadership of Douglass and Cheselden. For a period of 2,000 years this operation had been considered to be "so difficult and dangerous that it had been ordained to be the entire profession of one man free from other studies and practices."

The field of surgery was limited almost entirely to morbid conditions affecting the extremities and surface of the body. New growth involving the viscera belonged absolutely to the domain of internal medicine. The great field of inflammatory conditions affecting the viscera was undreamed of.

The literature was in a most deplorable condition. No book existed which covered the entire field. The best books on the different subjects had been written by men widely separated and in different languages, making it very difficult to acquire a working knowledge of the best, and forcing the ambitious to travel far to learn all that was to be known.

As a result of this condition whenever a surgeon became proficient in any one line it was customary for him to travel from to town, from one country to another. In this way quacks and pretenders developed and flourished, and to them were largely left those disorders and operations requiring the greatest skill. Germany is said to have swarmed with them. Today the author of an article hastens to give the latest reference to his subject, and seldom does he refer to any article published more than ten years back, but in 1700 the authorities most frequently quoted were Hippocrates, Celsus and Galen, and any measure or method not sanctioned by them was unorthodox.

So far as I can gather, the first attempt to cover the entire field of surgery and make it available for the student was undertaken by Dr. Laurence Heister, who began his book in 1709 and completed it in 1739. He was professor of Physic and Surgery in the University of Helmstadt, F. R. S., London, and R. A. Paris.

To him I am indebted for most of the re-

*Read before the recent meeting of the State Medical Society at Asheville, N. C., June 16, 1909

mainder of this paper, and have frequently quoted him.

In his preface he states that he was lead to attempt such a work "because of the general ignorance and insufficiency of the young surgeon and student in this branch of Physic, which at the time universally prevailed throughout Germany especially, and because the generality of surgeons, being unequal to the more difficult operations, were content with being able to cure a slight wound, open a vein or abscess, or at most set a fracture or reduce a dislocation, leaving the rest to quacks."

The necessary qualifications of a surgeon as laid down by Celsus, held good in 1700, and were as follows: "He ought to have quick, clear sight, intrepid mind, void of all tenderness, so as not to be at all moved by the outcries of his patient, to use no more haste than is required, nor to cut less than is necessary."

Prognosis concerning a wound or operation was given with reference to age of patient, the climate and as to whether the patient was "Hydropical, Consumptive, Scorbutical or Pocky."

The care of wounds formed a large part of the duty of a surgeon at this time on account of the numerous wars and the frequency of personal encounters. At the first visit the surgeon was called upon to pronounce the wound either "curable or mortal." A wound was mortal when "it could not be remedied by all the art and industry of man." A curable wound was said to become mortal per accident, when the death of the patient was "occasioned by his own ill conduct or by the ignorance or neglect of the surgeon, such as the failure to remove a foreign body or to provide passage for the discharge of blood from thorax or abdomen.

In wounds of the abdomen we find the following directions: "If you can discover by your eye or the touch that any viscus situated in the abdomen has received a wound from a sharp instrument it will be advisable at the first dressing to fill the wound as tenderly as possible with a good quantity of lint, well saturated with high rectified spirit of wine or spirit of turpentine, by this means the hemorrhage will be stopped, if no large blood vessel is divided. At the second or third dressing a tent should be introduced to provide proper passage for the discharge of grumous blood and other matters, which may kill the patient. If the patient is of plethoric habit of body it will be proper to bleed him, to prevent inflammation and fresh effusion of blood. Also give him daily two or three doses of Meibomius's Balsam, which is of great efficiency in healing internal wounds. What remains must be left to God's Providence and the strength of the patient's constitution."

The closure of an abdominal wound by suturing was termed gastroraphy and was resorted to only when the wound was so large that it was impossible to retain the intestine in any other manner, and when a large wound divided the muscles transversely, the peritoneum remaining intact.

In an operation concerned with a hernia the rule was to leave the peritoneal sac and all or most of the wound open, and to introduce a tent; the wound was left to heal by granulation. Heister tells us that in his time the Russian surgeons frequently ligated the sac.

We are told that a great many cases of hydrocele in infants can be cured by fastlng, chewing a little nutmeg every morning and breathing on the parts at the same time every day. When this failed it was customary to bind a piece of caustic to the scrotum, retaining it there until the sac was open and the fluid had escaped, then to pack the sac with lint for a few days.

Before resorting to the use of instruments to elevate a depressed fracture of the skull a sternutatory powder was highly commended, it being asserted that "the distention of the brain is so violent in the act of sneezing that it will restore the depressed parts of the bone to their former situation."

It is interesting to note in this connection that fracture of the skull by *contre coup* was recognized and described by Hippocrates.

Any preternatural enlargement of the body situated beneath the skin was called a tumor, if it grew "from or upon the skin it was called a wart corn or excrescence."

In 1700 any new growth was either a scirrhus or cancer. The definition of scirrhus was 'any hard tumor situated beneath the skin and void of pain." The tumor was thought to be due to the "inspissation and induration of the fluids of the part, resulting from a previous inflammation." Trauma was the second factor in the production of a scirrhus, and when not due to either one of these causes it was ascribed to heavy phlegmatic, melancholic habit of body." It was considered "no difficult matter to determine the principal cause of a scirrhus." A scirrhus could "cause inflammation, exulceration, cancer, gangrene, tabes, stiffness or immobility in the neighboring parts."

A cure was attained with great difficulty, palliative measures were not to be relied upon, and removal was difficult and dangerous because operative interference was not indicated until there was great pain or the size of the tumor demanded it.

When it could not be "dispersed, softened

or removed with a knife, when pain developed and when it spread itself unequally it was called a cancer. This is the malignant and worst state of a scirrhus." If the skin remained unbroken it was called an ocult cancer. The most common location of cancer was the female breast; other locations were the lips, gums, tongue, fauces, nose and parts of generation—it was also recognized in the male breast.

The causes of cancer included those of scirrhus, and in addition it was said to follow the "application of lenient acrimonious or caustic medicines to a scirrhus." A cancerous disposition of the body was thought to follow the eating too freely of pork and lard. "Grief and trouble of mind" were also classed as causes of cancer.

Quacks claiming to possess infallible secrets for the cure of cancer flourished then as now. Heister, to prove that nothing short of the complete removal with the knife offered any hope of relief, quotes the expression of Hippocrates that "no physician had yet been happy enough to discover a medicine from which he could promise any certainty of a cure." He also recites the memorable case of Anne of Austria, mother of Louis XIV, "who failed to be relieved of a cancerous breast, though she submitted to the attempts of most every one in the kingdom who had any pretentions to the practice of physic or surgery, but particularly to those who boasted of their secret art in curing this disease."

A brief description of the operation for cancer of the breast will give a fair idea of surgical technique in 1700.

The patient was restrained in the proper position by "three or four strong and courageous assistants, the breast raised from the chest by transfixing it near its base with a double pronged steel instrument or by two strong ligatures passed at right angles to each other through its base, or by seizing it with a strong pair of toothed calipers. The gland was then removed with one sweep made with a large knife or small sword. Diseased tissue in muscle or rib, when visible, was cut away. A few large vessels secured and the wound dressed with a large quantity of scraped lint, sprinkled with a styptic powder or impregnated with plaster of Paris, and the whole secured with a bandage. By many it was a common practice to treat the wound with suppurrants, corrosives or the actual cautery to make the destruction of diseased tissue more certain. But many objected to this and cited the observations made by Celsus that "such practice in no way aided the cure, but possibly promoted a recurrence." Enlarged axillary glands were removed through a separate incision.

There was not much difference between the surgery of 1700 and that of any century which preceded it, of which we have any definite knowledge.

In that day the surgeon had no watchwords. Today he has three which will never be discarded or laid aside.

The first letter in the first work was furnished by Antony van Loenwenholk at London on Sept. 14th, 1683; the second by Marcus Antonius Plenciz at Vienna in 1762; the remaining were quickly found by Pollander, Davaine, Weigert, Tyndall, Cohen and Pasteur, and then in 1824 Sir Joseph Lister pronounced it; the pronounciation has never changed—nor never will—it is asepsis. At the Massachusetts General Hospital on October 16th, 1864, W. T. G. Morton and John Collins Waren pronounced "Ether" a safe and sure anæsthetic. The last of the three watch-words in modern surgery was given us by Virchow and Metchnikoff when they emphasized the importance of understanding morbid processes.

To aseptic methods practiced on an anæsthetized patient by a surgeon familiar with morbid conditions is due to difference between surgery of 1700 and the present day.

Effect of Fever on the Course of Infection

Barkankeiff conducted a series of experiments on animals in which aseptic fever had been induced by Aronsohn's method. The results seem to prove: (1) that during fever the organism is more susceptible to auto-infection by the bacteria inhabiting the body cavities, though genuine infectious diseases seldom occur in this way; (2) that fever greatly diminishes natural immunity, and renders the subject liable to infections to which it is otherwise immune; and (3) that the resistance of the organism to the entrance and growth of bacteria is so far decreased that even attenuated strains of the pathogenic characteristic lesions.—Zeitsch. f. klin Med., V. 68, p. 295.

Comparative Value of Different Methods of Hebotomy.

Cyrille Jeannin considers hebotomy a real advance over symphysectomy. As to the best method of performing the operation, he prefers the open method, which allows of prevention of wounds of the bladder, better hemotasis, and better drainage. The incision of Gigli is too far inward, that of Van der Velde too far outward, the median incision of Codereini being the best. In the subcutaneous method we have the danger of wounding the bladder, and that of thrombosis and infection.—La Presse Medicale.

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THE PHYSICIANS NATIONAL BOARD OF REGENTS.

A conviction has been growing for the past few years in the minds of many physicians that it would ere long become absolutely necessary for the medical profession to exercise its right and privilege of directing and controlling the business of nursing. Recently a movement has been started the avowed purpose of which is to correct these tendencies. The Physicians National Board of Regents, which includes some of the most prominent physicians of this country, is undertaking the execution of such ideas as it is believed will accomplish the ends desired. Dr. Eugene Underhill, of Philadelphia, is president of this association and editor of its official organ "The Guide Book". An expression of Dr. Underhill's views, which likewise embodies the purposes of the Physician's National Board of Regents, we deem worthy of reproduction. Every physician knows, and every nurse ought to know, that the business of nursing was created by the medical profession. The physicians have opened the door of this opportunity and put the nurses in the way of acquiring the necessary knowledge and skill. In view of the origin of the nursing profession and the overwhelming demand, one would suppose that there would never be any attempt to eliminate the doctor from a wise and proper guidance of the profession, or to create a monopoly of the business of nursing in the interest of a few nurses. Yet this very thing has been attempted. The effort has been tolerated by the medical profession for some years. Within the last five or six years, there has been a growing tendency and disposition on the part of a few nurses, not only to ignore the physician, and the rights of other nurses and the needs of the public, but a disposition to usurp the the prerogatives of the doctor. The direction in which the few have endeavored to lead the many is in the direction of disaster. State registration of nurses, which practically means the creation of two authorities in the sick-room, is the weapon which has been chosen for the creation of a monopoly, and as a means of restricting the business of nursing to a favored few. Every doctor knows that the responsibilities of a case rest with the attending physician, and that it can neither be shifted nor divided. The doctor must be in supreme command in the sick room or he must not be there at all. These are principles regarding the treatment of the sick which are evident to every sensible physician, and yet we hear advocates for the State registration of nurses boldly declare that "the domination of the doctor and the man must cease when he leaves the sick-room."

Nurses all over the country are not slow in catching the spirit of such sentiments, and, as a natural result, physicians are finding it more and more difficult to keep nurses of the State Registration type from modifying their treatment or changing it altogether and substituting their own. The effect of such a course on the part of the few who are seeking equal rights with the physician via the State Registration route, is felt in the supply of nurses both in private practice and in institutional work.

Few physicians can be found who have not had unfortunate experiences with the meddlesome and prescribing nurse. The declaration of many physicians that the State Registration movement tends to develop wholesale quackery, and to create a class of insubordinate nurses, with a show of legal authority to apparently justify their claim to equal privilege in directing the affairs of the sick-room, is undoubtedly true. The State Registration movement has also tended to place the control of nursing in the hands of a few dictatorial persons, whose desire seems to be to limit the supply of nurses, whose desire seems to be to limit the supply of nurses to hospitals, and to so manipulate and elevate prices, as to prevent the poor and the great middle classes, from securing adequate nursing assistance.

It has, therefore, become necessary for the medical profession to regulate the business of nursing. This is done in the interest of the nurses themselves, in the interest of the hospitals and training schools, in the interest of the general public and in the interest of the medical profession.

The Physicians' National Board of Regents propose to classify the nurses and issue a National Commission or other suitable credentials to all nurses who are duly qualified and are willing to abide by the instructions of the attending physician, and who will not attempt to play the role of doctor or encroach upon the rights of other persons or nurses in their efforts to relieve the sick and suffering. Four classifications will be made, as follows:

1. Commissioned and Official Nurses. (Those having completed a two years' course or more in a general hospital or training school).

2. Approved Nurses. (Those having completed a two years' course in a special hospital).

3. Attendant Nurses. (Those engag-

ing in nursing, after having had only a theoretical or correspondence course of instruction).

4. Provisional Nurses. (Those having been engaged in nursing for a year or more, i.e., the so-called practical nurse).

This will be a distinct advance in the profession of nursing. It will give all the worthy an equal chance, and will eliminate the unfit. It places the control of the nursing profession where it belongs, namely, in the hands of its creators, the physicians.

DR. CHAS. DUFFY.

The Journal is intensely grieved to record the death of another of North Carolina's grand old physicians. On the morning of August 18, Dr. Charles Duffy passed away at his home in New Bern, N. C. Death was not unexpected, since Dr. Duffy had for some time been afflicted with cancer, for which he was operated on last February. Following this operation he was greatly improved for a time, but afterwards rapidly grew worse. The oldest physician in New Bern, Dr. Duffy was also one of the oldest in the whole State. Born in Onslow county, July 18th, 1838, he was therefore seventy-one years of age. Graduated from the University of New York in 1859, he had been in active practice for fifty years. In 1870, he became a member of the North Carolina Medical Society and from 1872 to 1878 served as a member of the State Board of Medical Examiners. In 1877 he was appointed a member of the State Board of Health by the State Medical Society, which position he occupied for one year. He was vice-president of the Society in 1873, and president in 1879. Dr. Duffy thus held every important office within the gift of his professional brethren of the State. Prominent in Medical Councils he was likewise recognized as one of the finest physicians in North Carolina. He was a magnificent specimen of that type of old-time doctor, now too rapidly disappearing. Although a student before the days of modern development in medicine and surgery, Dr. Duffy was never left behind. He kept himself thoroughly up-to-date in medical progress. A courtly gentleman, a genial lovable doctor, he held a place in the hearts of his friends and patients that will not easily be filled. As chairman of the State Board of Public Charities, Dr. Duffy has carried on a work worthy of the man. The good he has done can be known only by Him who permits no good deed to go unrewarded. Entering his profession just on the eve of that great conflict between the North and the South, he volunteered his services and become a surgeon of the Confederate Army, in which capacity he served throughout the war.

The Journal takes this opportunity of expressing its profoundest sympathy for his bereaved family and relatives. We merely voice a sorrow which is universal throughout the whole State.

X-RAY BURNS.

The subject of X-ray "burns" has occupied considerable attention in the last two or three years. So much publicity has been given to it that not only patients, but even many physicians have formed the opinion that the Roentgen ray is too dangerous to be used at all.

This is quite as erroneous a view as the one that the ray is entirely harmless.

It brings out the point that the ray should be used cautiously and by skilled hands.

Under these conditions it is not only practically devoid of danger, but it is one of our most useful measures in a number of diseases, to say nothing of its diagnostic value.

The so-called X-ray "burn" is really an inflammatory condition set up by an overdose of the Roentgen ray; therefore its technical name of dermatitis. This term, too, is inadequate in the case of deep "burns" which involve tissues far below the skin.

To get results from the Roentgen ray it must be absorbed, just as it is necessary to have absorption of drugs in order to get their effect.

As the skin absorbs by far the greater portion of the rays, so the reaction is quicker and more pronounced in the skin.

X-ray dermatitis is wholely and solely a question of dosage, or perhaps we should say over-dosage, for that is what it really is.

A proper dose of the ray produces no burn. A full dose just brings the tissues to the condition represented by the full physiological action of a drug. Carry the dose beyond this point and we have a pathological condition produced as the result of an over-dose, just as with an over-dose of strychnine or arsenic.

Just as soon as the dosage of the X-ray is better understood, and is easier to accurately measure, then "burns" will be as rare as are over-doses of strychnine, morphine or arsenic, and will only be the result of gross ignorance or gross carelessness, except when intentionally produced.

It is customary to treat cases with the X ray until a visible reaction takes place in the skin. However mild this may be, it is in reality a dermatitis and marks a corresponding step beyond the physiological dose of the ray. As long as it is slight it is harmless and is at present our only sure sign that we have given a maximum dose

of the ray, and must therefore await its subsidence before giving more.

By observing the same caution in adding to a maximum dose that we would in administering morphine or strychnine, the ray becomes as simple and amenable to use as those powerful drugs have become.

MECHANICAL VIBRATION.

The surprising rapidity with which mechanical vibration has been adopted by the medical profession is in itself a powerful argument in favor of its therapeutic value.

The fundamental principles underlying its use are dependent upon its influence on nerves or nerve-centers; thereby regulating the action or function controlled by them.

The fact that nerve-centers respond quickly to mechanical stimulation is by no means new, but the working out of the present system of vibratory therapeutics is comparatively recent.

A tap or light blow will immediately increase the activity of a nerve-center. A succession of such strokes will carry this up to a certain required degree of stimulation. Pushing it beyond this point overstimulation or inhibition results. Thus, according to Eberhart, vibration places these two agencies, stimulation and inhibition, at the command of the physician, enabling him to increase the activity of sluggish organs or functions; or to soothe the same parts when irritated or over-active.

When the vaso-motor centers of the sympathetic system are influenced by vibration we have a change immediately taking place in the size of the various blood-vessels controlled by them and an alteration in the amount of blood determined to a given area. This, then, makes it theoretically possible to equalize the circulation, increasing the blood supply when local anaemia exists and decreasing it when congestion is present. The advantage of this is obvious, especially in the case of congestion, for do we not remember the old precept that continued congestion results in inflammation.

Vibration also increases the elimination of poisons and waste through the lymphatics and this is an important feature.

Taking into consideration the relatively small cost of vibrators, in comparison with their great range of usefulness they form an important part of the "up-to-date" physician's equipment.

ANAPHYLAXIS.

Our last issue contains an article on Anaphylaxis by Dr. R. N. Duffy, of New Bern, N. C., to which we wish to direct special attention, not only because of the great interest which is being manifested in the subject throughout the world, but because the author has presented the subject in most pleasing style and also because it is essentially important that practicing physicians should know that there is such a thing as "serum disease". Many doctors who have employed antitoxin in the treatment of diphtheria will recall cases in which the injection of the remedy was followed by very untoward symptoms. These occurrences have perhaps led to a certain, and in some measure, a justifiable opposition to the use of antitoxin; it is however an opposition having its origin in ignorance. Theobald Smith was the first to note that experimental animals often succumbed to second injections of serum which, when given the first time, had not been harmful. Rosenau and Anderson in the Hygienic Laboratory of the Public Health and Marine Hospital Service, and Otto, working in Ehrlich's laboratory in Frankfort, independently investigated Smith's observations and thoroughly elucidated the problem.

Serum disease (Die Serumkrankheit) is due to anaphylaxis which may be defined as the opposite of prophylaxis (Lemann). Just as the latter term indicates a condition favoring protection, hence lessened susceptibility, so anaphylaxis means a condition of decreased protection and increased susceptibility. We have for a long time been accustomed to the idea that by certain measures, for instance, vaccination or the injection of antidiphtheritic or antitetanic serum, we may increase the resistance of our bodies to certain diseases, but it has been only within the past three years that attention has been particularly devoted to the fact that the injection of certain foreign materials decreases the resisting power to future injections of the same substances; in other words we have begun to realize that a condition of anaphylaxis is produced, the results of which may be quite as dire as those of the disease we originally started out to treat. The substances which possess this action are probably proteids, and, because employed most, the serum of the horse concerns us most. The reactions are not due to the antitoxins contained in the therapeutic sera, for they are equally produced by normal horse serum; nor are they due to any of the preservatives usually added to the sera. The anaphylactic constituents are unaffected by heat or cold, or chemical agencies. The reaction is specific, that is, an animal sensitized with horse serum reacts only to horse serum; sensitized with egg-white, it reacts only to egg-white, and so on. Anaphylaxis is transmitted hereditarily from mother to off-spring and the untoward effects increase in severity with the length of interval between the injections. It has been shown that an interval of at least ten or twelve days must elapse be-

tween the first and the second injection in order that the patient show anaphylaxis or heightened susceptibility. Von Pirquet has pointed out the great significance of this reaction in its relation to immunity. Thus the tuberculin reaction is one of anaphylaxis.

In the light of such knowledge physicians will necessarily look upon prophylactic injections of sera with considerable skepticism. Indeed the possibility of subsequent anaphylaxis would seem absolutely to contra-indicate this practice, although serum inoculation must still be looked upon as one of the most valuable therapeutic measures. The thing more important than prophylactic inoculation is positive diagnosis. This first injection might possibly remove the one chance in a subsequent injection. In the future we shall probably have to rely for prophylaxis upon vaccines rather than upon serum. Vaccines are simply the dead bacteria in suspension in non-proteid media. It is the serum, or rather the proteids in the serum, that does the harm.

It will be some slight comfort to know that when an animal has once reacted anaphylactically to a given substance it may develop a condition which prevents a subsequent reaction, that is, antianaphylaxis has been developed.

A NEW THEORY CONCERNING THE ETIOLOGY OF ADENOIDS.

The prevalent belief that adenoids and nocturnal enuresis bear a genuine causal relationship has for years been calmly accepted by the majority of the profession. Certainly the common association of the two has apparently given reason for the assumption that bedwetting is, in some instances, due to the existence of an excess of adenoid tissue in the nasopharynx. The fact, however, that the removal of the adenoids affords a very uncertain cure for the enuresis would seem to introduce a doubt as to the relationship. A new and distinctly original view has been advanced recently in the *British Journal of Children's Diseases* by Leonard Williams when he expressed the theory that the above mentioned idea as to the relation of adenoids to bedwetting is erroneous, and that both are due to an insufficiency of the internal secretion of the thyroid. Acting upon this belief he administered thyroid extracts with results so uniformly good that he is of the opinion that fully 80% of children who are said to suffer from adenoid vegetations may be cured by purely medicinal means. The commonly observed signs of adenoids such as are noted in the typical facies: listless eye, snub nose, open mouth, rabbit teeth, malformation of the jaws—especially the upper giving rise to the high-arched palate, are not to be attributed to the blocking of the nasal air-way, but are rather to be thought of as arising quite independently of the hitherto supposed cause. In the majority of cases of so-called "adenoids" there are also to be noted the existence of a subnormal temperature and lack of proper development of the body as indicated by weighing. The constancy of a subnormal temperature in these cases of nocturnal enuresis which are successfully treated with thyroid extract, and its disappearance coincidently with the bedwetting, led Williams to infer that there might be a relationship between the subnormal temperature and the incontinence. However, he prefers to account for both by the existence of thyroid insufficiency. It is interesting to note the theory of the pathogenesis of the bone deformity in cases of adenoids. One of the most important functions of the thyroid secretion is admittedly the fixing of calcium salts in the tissues. Without a sufficiency of the secretion the salts cannot be utilized, bone-formation is defective, and the child's bones fail to grow hard, and, in the case of the palatine arch, they yield to external pressure in such a way as to convert the arch from a Norman into a Gothic structure. This same relative absence of calcium salts from the tissues, due to the thyroid insufficiency, may likewise account for the occurrence of dental caries in such children.

In adults a lack of thyroid secretion is associated with a boggy, heavy development of fat, which obese condition is oftentimes very characteristic. Such a state is also seen in children, but is usually associated with complete absence of thyroid secretion. When, however, the insufficiency in infants and children falls short of complete absence infantilism is produced, the subjects of which are rarely corpulent. In this way is the undersize of such children accounted for; whereas in the adult the thyroid insufficiency shows itself chiefly by inadequate metabolism and the consequent excessive deposit of fat; in the child the insufficiency prevents the utilization of calcium salts, bone formation is defective and the child fails to grow. Administration of thyroid extract to such children causes them to gain in weight and size rapidly. Indeed the weight gives an index upon which the extract administration may be gauged. As long as there is a gain the remedy is doing good, but as soon as there is a definite fall the borderline of safety has been crossed, and the drug should be suspended. Another sign of intolerance of the remedy, besides tachycardia, is the occurrence of sudden and severe nasal catarrh. Williams affirms that this is really

one of the most significant symptoms of thyroid excess. Still another is elevation of the body temperature beyond the normal.

BENZOATE OF SODA.

The long mooted question as to whether benzoate of soda as a food preservative is injurious has at last been settled, so far as it is possible to settle such a problem, by the Pure Food Congress which met in Denver, Col., during the last days of August.

The resolution, adopted by a vote of 57 to 42, follows:

"That this association indorses the report of the referee board of consulting scientific experts appointed by Secretary of Agriculture Wilson, at the direction of President Roosevelt, upon the use of benzoate of soda in food products."

The report referred to was based on the experiments carried out in Chicago, New York and New Haven.

These experiments consisted in the administration of quantities of benzoate of soda into the food given to healthy young men for periods respectively of two months and one month. The work of Dr. Russell H. Chittenden, of New Haven, Conn., a member of the referee board, will be remembered. In the period of observation three-tenths of a gram of the sodium benzoate was administered daily to each subject during the two months' period. In the one-month experiment each man received per day during the first week six-tenths gram; second week, one gram; third week, two grams; fourth week, four grams.

It would certainly appear that this administration, when accompanied by a gain of body weight and without loss of power to digest and absorb the protein and fat of the daily food must be taken as evidence that sodium benzoate in the doses administered is not seriously detrimental to health.

Discussing the question Dr. Chittenden said:

"Certainly huckleberries, cranberries, plums, prunes and other related fruits contain appreciable amounts of benzoate. In other words, the eating of a small quantity of huckleberries, raspberries or kindred berries is accompanied by the taking into the system of more benzoate than in the administration of three-tenths of a gram of sodium benzoate.

"In the light of our experiments it is difficult to say why benzoate in moderate amounts should be considered any more inimicable to health than such a salt as sodium chloride."

There is, however, another side to the question which makes one doubt whether these experiments were clearly and definitely conclusive. Dr. Reed, of Cincinnati, has called attention to the fact that while he report attributes no abnormality to benzoate while the experiments were going on, that there were nevertheless abnormalities. In the Chicago squad, several of the young men were depressed. On the New Haven squad, stomach troubles of one young man was attributed to 'cold weather' and to 'hard work.' It is rather noteworthy that cold weather and hard work should have had these effects rather than the chemical.

However, the report and resolutions of the Pure Food Congress will go far toward removing the popular belief in the injuriousness of this commonly used food preservative.

ALABAMA MEDICAL EXAMINERS.

The Alabama State Board of Medical Examiners has announced the list of successful applicants in the recent examinations. Of one hundred and fifty who stood the examiuations seventy-three were successful. Dr. Fred. W. Wilkerson, of Montgomery, led the class.

Only one of the successful applicants is a negro, though six negroes undertook the examination. Not a woman applied for a license.

All successful applicants are residents of Alabama, with the exception of two from Arkansas and two from Mississippi.

OSTEOPATHS SUGGED IN GEORGIA.

The Georgia Legislature, after a hot fight, recently passed the regular stock bill which the osteopaths are systematically presenting to legislatures throughout the country.

Under this bill the governor is authorized and directed within 30 days to name five members of a board, who shall examine all applicants and issue licenses to those who make the required percentage.

The subjects in which applicants are to be examined include anatomy, chemistry, toxicology, physiology, pathology, diagnosis, hygiene, obstetrics, gynecology, surgery, medical jurisprudence, the principles of osteopathy and such other subjects as the examining board may require.

VIRGINIA MEDICAL EXAMINING BOARD.

The State Board of Medical Examiners of Virginia held the regular semi-annual examinations, June 22-25, in Richmond. The results were announced through Dr. R. W. Martin, president of the Board, August 15th. There were 118 successful candidates, including several young women, and a number of negroes.

REX HOSPITAL.

The new Rex Hospital in Raleigh, N. C., will be ready for occupancy by October first. Miss Helen Orchard, of Columbia, S. C., who for the past ten years has been eugaged in hospital work in Richmond, Va., will be superintendent of the hospital.

GERIATRICS.

We have long recognized the term *paediatrics* as applying to that field of medicine dealing with the diseases of infancy and childhood. Without actually and accurately defining the stage of senility and its diseases, we have nevertheless tacitly accepted old age as one of the physiological periods of life. Recently Dr. I. L. Nascher, of New York, has proposed the term *geriatrics*, from *geras*, old age, and *iatrikos*, relating to the physician, to cover the same field in old age that is covered by the term paediatrics in childhood. That senility is a distinct period of life having general features normal to it and abnormal to all other periods is readily accepted. When any of its manifestations appear during childhood or maturity they are indicative of disease, and medical skill is often able to remove them. Occurring during the period of life when degeneration and decay are natural and inevitable medical skill may possibly retard, but death alone can stop the processes of decay. Physicians have come to look upon the features of senility, the atheromata, degenerations, ossifications, and calcifications, etc., as pathological features of maturity instead of considering them normal features of senility, and they are treated as diseases. Any condition, feature, function, or circumstance which prevails generally during one period of life must be considered normal to it though it be a disadvantage to the individual. The weakness of the infant and its liability to exanthemata are normal to that period of life, The pains of labor are normal in the mature woman. For the same reason we must consider the degenerated organs and altered functions of senility normal and physiological. Childhood has received special attention by physicians and a special branch of medicine has been assigned to it. Senility has received the attention of but a few investigators; aside from these it receives no special consideration, its manifestations are considered pathological conditions of maturity, and its diseases are treated as though they were diseases of maturity occurring in individuals who have a weak constitution. Having an individuality of its own as clearly defined as childhood, with anatomical features, physiological functions, diseases, and their treatment differing from maturity it should be considered apart and distinct from maturity, and as a special branch of medicine. To such a specialty might be applied very aptly the term geriatrics. Dr. Nascher cites the following illustration to show the marked differences between the conditions existing in senility and maturity. In the normal senile chest the sternum is ankylosed, the ribs become harder and lose their resilience, the costal cartilage, and the cartilages of the larynx and trachea become ossified, all through the deposition of lime salts. Waste proceeding faster than repair, the chest muscles atrophy, and this with the bone and cartilage changes decreases the mobility and elasticity of the chest walls, interferring with the expansion of the lungs. The lung tissue atrophies, and the alveolar septa waste and finally are obliterated, the vesicles coalesce, and we have an enphysematous condition in an atrophied lung. Owing to this condition of the lung and the weak circulation of senility we have an incomplete aeration of blood an impeded pulmonary circulation, with a tendency to hypostatic congestion and susceptibility to adynamic inflammation. This adynamic inflammation which is the principal cause of death in old age, differs in many essentials from the pneumonia of maturity. The sthenic type is infrequent and in only about fifty per cent. of these are there the classical initial symptoms, chill and pain. There are many latent cases presenting no marked symptoms, cases where the emphysematous symptoms mask the symptoms of the pneumonia, and cases where the symptoms present do not point to lung involvement. In many cases there is little or no cough, pain, dyspnœa, or expectoration. The physical signs of senile pneumonia differ from the signs in pneumonia of maturity, and there is a difference in the progress of the disease. Few cases reach the stage of resolution, and in these areas of engorgement remain as foci for future inflammations. Death is generally due to exhaustion or paralysis of the heart or lungs. An important feature in all diseases in senility is the presence of symptoms referable to the senile conditions, and masking the symptoms of the disease.

Dr. Nascher's article, published in the New York Medical Journal, certainly presents some ideas worth consideration. His view, so far as we are able to ascertain, is unique and the term he proposes is a distinct and useful addition to the medical vocabulary.

TYPHOID PROBLEMS.

For many years the medical profession has supinely accepted the theory that water is the chief means by which the germs causing typhoid fever are spread. Recently however our historic beliefs have received more than one effective jolt. No less is this true of the method of dissemination of typhoid fever. In some cities, Washington for example, the elimination of the hitherto-believed chief source of contamination, namely water, has had no effect on the

morbidity from this disease. Everybody knows that typhoid fever is present in cities all the time, and that even when a city is exempt from an epidemic there must be many sources of infection. The Yale Medical Journal editorially on this subject cites the recent results of studies by Kayser in Germany. This investigator has reported the results of several years' investigations, in the city of Strasburg, during which period hundreds of cases were carefully studied and the source of their infection traced when possible. He found that in Strasburg nearly one per thousand of the inhabitants (the total population being 150,000) contract typhoid fever each year. Of the sources of infection raw milk is the most serious. Over one quarter of the cases could be traced to the use of uncooked milk, cream, or sour-milk; less frequently to the use of butter-milk. The mixed milk of large dairies was found to be at fault as well as that of small concerns, and it was generally determined that there was typhoid in the family of the milkman, or else a bacillus carrier was connected with the establishment. Water was responsible for about fourteen per cent. of the Strasburg cases, usually brook or canal water rather than the city water. Bathing or swimming in contaminated water was not infrequently responsible. Food infection aside from milk occurred in two per cent. of the patients. Contact with patients was responsible for over ten per cent. of the cases. In nearly all these instances the disease was atypical and had not been diagnosed typhoid fever, consequently the usual precautions were not taken. A little over nine per cent. of the patients had been infected by contact with bacillus carriers. In thirteen per cent. of the patients no definite source of infection could be traced.

The study of the occupations of the patients showed that certain trades were almost free from the disease, others frequently subject to it. Those caring for the sick showed the highest morbidity, after them those having to do with food and clothing. Bakers, laundresses, tailors, shoemakers and those handling food or clothing or objects which might have been previously handled or used by infected individuals, were most likely to have the disease. Barbers formed a peculiar exception to this rule. The investigation showed that typhoid fever is not a house disease, though it may be a street or locality disease through infection from certain dairies or other sources of common food supply.

These investigations are of great value, indicating as they do the lines of prevention of typhoid fever in cities. They show that much more than the ordinary milk inspection as now practiced is needed. Every dairy which is allowed to supply milk to a city should be under vigorous control. The individuals engaged in trades like baking, where food is handled freely, should also be under sanitary inspection. Thorough disinfection of all articles of attire which have been worn by typhoid fever patients before and during their illness should be rigorously carried out. The necessity for routine examination for bacillus carriers is also apparent, as about five per cent. of all typhoid patients become chronic carriers under existing circumstances. This means several hundred carriers in a city of 150,000. All of these things go to show that the stamping out of typhoid fever, if it is ever systematically attacked, will be a prolonged and expensive process.

A PATHOGNOMONIC SIGN OF APPENDICITIS.

The diagnosis of appendicitis is not always as simple a matter as is commonly believed, although it is usually considered a rather insignificant procedure to do what is termed an exploratory operation. The classical group of symptoms do not always necessarily arise because of appendix disease. And much more is this true of the ambulant cases, those cases in which the patients go about, pursue their vocations, and at times complain of pain in the right half of the lower abdomen—over McBurney's point, in the inguinal region, or even about the umbilicus. The first and most important question that confronts the physician when consulted by a person of this group, or even when called to a case of a more acute character, is: Is this appendicitis?

A sign which can justly be called pathognomonic would prove of inestimable value to the diagnostician. Dr. H. Illoway, of New York, has recently described in "Archives of Diagnosis" a sign which he believes to be pathognomonic. It is elicited as follows: The patient is placed at full length on a flat surface. He is then instructed to flex the leg upon the thigh and the thigh upon the trunk: upon the execution of which it is ascertained whether the movement, or rather the upward pressure, causes any pain or soreness to be felt in the right half of the abdomen, i. e., the appendicular region. If none or very little is felt the thigh is more forcibly flexed either by the patient's own effort or by the physician. Again it is inquired whether any pain or soreness is felt or whether it is increased. Next the patient is directed to extend the leg to full length with a quick and rather sudden movement, care being

observed to ask the question whether pain or soreness was felt in the region under inspection. If neither of these movements has caused any appreciable pain or soreness, it is then best to direct the patient to execute the same movements with the left leg, and to compare the sensation produced, as to whether it is different from that caused by the right leg, or whether it is the same on both sides. Dr. Illoway claims that he has found that invariably only when appendicitis was present, whether as the primary malady or as a secondary involvement, did the flexion of the thigh upon the trunk give rise to a feeling of pain or a sensation of soreness which the patient would describe as being "deep down;" and even when this was not so marked the *rapid extension* would cause quite an accentuation of it. It may happen that the *more forcible flexing* of the thigh upon the trunk may cause some slight pain or soreness, but if this is not due to an appendicitis there will be no pain or soreness or *extension*. It is the pain or even soreness on *both flexion and extension* that Dr. Illoway regards as a positive and unfailing sign of the presence of appendicitis. It is said that this sign has in addition the advantage that it will furnish, by the degree of pain or soreness produced by the movements described, valuable indications as to treatment, as to whether an early operation should be advised or whether an attempt may be made, with safety to the patient, to cure the ailment by other measures.

It has been been so commonly observed in acute appendicitis that the patient keeps the right thigh flexed on the abdomen and complains of pain when it is extended that to mention the phenomenon seemed superfluous. It has likewise been customary to account for this by the movements to which the psoas muscle is subjected in flexing and extending the thigh. None however have so far attempted to utilize this knowledge for diagnostic purposes. While Dr. Illoway does not attempt an explanation of the sign which he describes, it is probable that no one would dissent from the theory that the pain and soreness are elicited through the action of the psoas muscle.

Dr. J. F. Siler, Medical Corps, U. S. Army, and Chief of Dept. of Tropical Medicine in the New York Post Graduate Medical School, has been sent to Peoria, Ill., to investigate the recent outbreak of Pellagra.

Dr. J. Irving Chapin, of Philadelphia, committed suicide in a New Orleans hotel, August 24th, by taking an overdose of morphine.

EDITORIAL NEWS ITEMS.

Press Correspondence.

WASHINGTON, D. C.,
3355 Meridian St., N. W., Aug. 20, 1909.

Editor of the Charlotte Medical Journal:—

Dear Sir:

As a student of medicine I am much interested in the editorial news item appearing on Page 100 of the August number of the Charlotte Medical Journal, regarding the causation of sex. According to Prinzing, the theory advanced by Dr. Dawson, apparently as a new idea, is as old as the study of medicine itself.

I translate from Prinzing, Medizinische Statistik, the sentence referring to this obsolete theory, and the reason why it is erroneous. The passage is taken from Part I, Chapter 9, of the Medizinische Statistik, (b) Theories on the Origin of the Sex and Ratio of the Sexes. (Theorieen uber die Entstehung des Geschlechts und uber das Geschlechtsverhaltnis) Page 83.

"In mankind the equality of sex in twins produced from the same ovum, argues that sex is predetermined in the ovum. In ancient times the view was maintained, and has recently been revived by E. Seligson, [1] that the male ova are situated in the right ovary; and the female ova in the left ovary. Births during unilateral diseases of the ovary and after unilateral ovariotomy, have shown the incorrectness of this view".[2]

[1] "Zur Bestimmung und Entstehung des Geschlechts". (On the Significance and Origin of Sex). Zentralblatt fur Gynacologie 1895 No. 22.

Ditto: "Willkurliche Zeuzung von Knaben and Madchen." (The Procreation of Boys or Girls at Will.) Munich, 1895.

[2] F. v. Winckel: "Die Bedeutung des Eierstocke fur die Entstehung des Geschlechts." (The Relation of the Ovary to the Origin of Sex.) Deutsche Praxis, 1808. No. 8.

It is rather remarkable that a man who has collected such a mass of clinical data in support of his theory, as Dr. Dawson has, should have failed to observe a case in which a woman with only one functioning ovary has yet produced children of different sexes. Such cases are by no means rare in an extensive obstetrical practice.

Very truly yours,

WINTHROP Y. FOSTER.

Dr. Hamilton P. Jones, of New Orleans, formerly State Chemist, has been made State Food Commissioner of Louisiana.

North Carolina Medical College Opens.

The North Carolina Medical College opened, September 8th, for the session 1909-10. The opening exercises were attended by about sixty students already matriculated. There are prospects for as many more.

Dr. W. O. Nisbet, dean of the college, extended greetings of welcome to the students. President J. P. Munroe made the formal opening address, speaking words of encouragement and caution as to the proper way in which to attack the studies to which they shall now address themselves and the best methods by which to derive the most possible good from their collegiate medical courses.

There are two young women students among the number already registered.

Dr. Sidney D. Porter, of Moreauville, La., was recently elected Special Medical Inspector to fill position made vacant by the resignation of Dr. C. Milo Brady.

The Board of Trustees of the Mississippi Insane Hospital has decided to make permanent the tuberculosis camp which was established during the latter part of Gov. Vardaman's administration. At that time the board lacked funds for completing the buildings as planned, and temporary canvas tents were brought into service. The experiment proved so successful in the marked improvement of patients that the Board has decided to make the camp a permanent institution.

The North Carolina State Nurses' Association held its seventh annual meeting at Wrightsville, August 18th and 19th. The sessions were presided over by Miss C. E. Pfoll, of Winston-Salem. A number of nurses were in attendance. Several physicians of note addressed the association in addition to the large number of papers presented by members. The State Examining Board for Nurses met at the same time. Quite a large number of nurses applied for registration.

The Virginia Department of Health has adopted a novel plan to carry out investigations in typhoid fever epidemics. The work is being undertaken especially in the Shenandoah Valley, Staunton being the center of operations.

A traveling laboratory has been placed in the Valley under the supervision of Assistant Health Commissioner A. W. Freeman and Dr. H. T. Marshall, professor of bacteriology in the University of Virginia. Dr. A. P. Waddill is in immediate charge of the laboratory.

The Louisiana State Board of Health has recently completed an official list of all registered practitioners of medicine in the State. The total number of physicians is 2033, of which number 701 are in Orleans parish alone. According to the estimate made June 1, 1906, by the Bureau of the Census, the population of Louisiana is 1,539,449, and making a calculation based on this estimate, it is shown that there is one physician for every 752 persons in the State. In Orleans parish, making a similar calculation based on a population of 350,000, shows there is one physician for every 495 persons in that city.

The Anti-tuberculosis Association of Chattanooga, Tenn., is making splendid efforts to obtain funds with which to establish a hospital for tuberculous patients. Hamilton county has donated a tract of land containing seventeen acres, together with $3,500 in money. The city of Chattanooga has promised a like sum, and this with other subscriptions makes a sum amounting to about $10,000 available. The building committee proposes to make a start with this amount. It is the purpose of the Association to make this hospital a purely local institution, to exclude patients outside the county of Hamilton.

Marriages.

Dr. T. O. Cophedge, of Castalia, N. C., and Miss Anna Mae Spears, of Boonville, N. C., were married Wednesday, August 4th, at the home of the bride's parents, Mr. and Mrs. John A. Spears.

Dr. and Mrs. Cophedge are now at home in Castalia, where Dr. Cophedge is engaged in the practice of medicine.

Dr. A. Roy Hogg, a prominent young physician of Haralson, Ga., and Miss Gertrude Allen, of Atlanta, Ga., were married August 24th, at the home of the bride's mother, Mrs. N. E. Allen.

Dr. Hogg is a graduate of the Medical College of Georgia. Class of 1905. Dr. and Mrs. Hogg are at home to their friends in Haralson, Ga., where Dr. Hogg is engaged in the practice of his profession.

Deaths.

Dr. Ralph B. Hanahan, one of the most prominent citizens of Winnsboro, S. C., died at his home July 31st. He was not a native of Winnsboro, although he had spent practically all of his life there. He had been a sufferer from heart disease for a long time, and his death was not unexpected.

Dr. Hanahan graduated from the Charles-

ton Medical College in 1886, and was for a time druggist in Winnsboro. After his graduation he spent one year in the city hospital at Charleston. Since that time he has been a practicing physician of Winnsboro.

Dr. J S. Osment, formerly a practicing physician of Chattanooga, Tenn., died at the home of his son in Birmingham, Ala., August 11th.

Dr. W. J. Trent, one of the oldest, and best known physicians of Cleveland county, N. C., died Sunday, August the 1st, at his home near Earl. He was 76 years old, and at one time he was a physician of great prominence.

Dr. James McGuire, one of the oldest, and best known, and most prominent physicians of Mocksville, N. C., died at his home August 21st. He had been in declining health for some years, and was compelled to give up his practice some time ago.

Dr. McGuire graduated from the New York University, New York City, in 1857.

Dr. T. W. Whitlock, a well-known physician of Unaka Springs, Tenn., died at his home July 29th. He was about 60 years of age. He graduated from the Medical Department of the University of Tennessee, Nashville, Tenn., in 1893.

Dr. C. L. Stevens, aged 71, and for half a century a practitioner in South Carolina, died at his home in Greenville, August 12th. His death was sudden, and quite a shock to the people in and around Greenville. He was surgeon of Hart's battery in the Civil War and was at one time president of the South Carolina Medical Society. He lived in Barnwell county until nine years ago, when he moved to Greenville.

Dr. William Forrester, a well-known physician of Louisville, Ky., died at his home in that city, August 15th. He graduated from the Medical Department of the University of Louisville, Louisville, Ky., in 1862, and since that time had been a prominent practicing physician.

Dr. J. P. Rorex, a retired physician of Scottsboro, Ala., committed suicide at his home August 8th, using a doublebarrel shotgun. There was no one present at the home except the victim when the terrible incident occurred.

Dr. Rorex was formerly one of the most prominent physicians of north Alabama, several years ago. Poor health and dispondency are thought to be the cause of the violent act,

Dr. H. M. Young, one of Dothan, Alabama's most prominent physicians, died at his home in that city July 27th, after a few days illness from dengue fever.

Dr. Young graduated from the Medical Department of the University of Alabama, Mobile, Ala., in 1893. He was a well-known and much beloved citizen as well as an eminent physician.

Dr. Oliver Buford, of Cartersville, Ga., died at his home on July 28th. The deceased was a very prominent physician, and was, for a number of years, surgeon in the United States Army.

Dr. Buford graduated from the Medical College of Georgia, with the class of 1881.

Dr. Kent Black, a leading physician of Montgomery county, Va., died at his home, three miles from Blacksburg, August 12th. Death came almost suddenly; before medical aid could reach the place.

Dr. Black was a graduate from the Medical College of Virginia, Richmond, Va., class of 1878.

Dr. E. L. Marechal, one of the best known and most prominent physicians of Mobile, Ala., died at his home August 19th. He had been ill for a long time, and death was not unexpected.

Dr. Marechal was a member of many local lodges and a member of the Board of Commissioners of Mobile county. He graduated from Medical College of Alabama, and for several years had been editor of the Mobile Medical and Surgical Journal.

Dr. Walter G. Curtis, a well-known physician of Southport, N. C., died at his home on August 9th. He was for thirty years State quarantine surgeon for the port of Wilmington, N. C., and was one of the most highly esteemed citizens of that section of the state.

Dr. Curtis graduated from Dartmouth College in 1342, later equipping himself for the medical profession at Howard University. He was formerly of New Hampshire, coming to North Carolina in 1847 and located in Southport, where he had an extremely large practice in the town and county.

In 1852 he was appointed acting assistant surgeon in the United States Army, filling the position for over a year.

The Phosphates of Iron, Soda, Lime and Potash dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See page xvi).

Review of Southern Medical Literature

Texas Medical Journal, July, 1909.

Psychology of Drunkenness.—Dr. E. Shepherd says that every fruit, plant and vegetable grown contains this vitalizing substance known as spirit; remembering also, that this spirit constitutes its life, and its life is its happiness, its living, its divine joy. What would drunkenness of the plant life be? Would not an undue portion, an excess of spirit or life—if it could be secured —cause the plant to lose its poise, its balance, its sobriety or sanity? Imbibing alcoholic fluids sufficiently, men lose control of mind and body, and we say "they are drunk." We have but to review the above stated facts, then observe that man's genius has devised methods whereby to extract, to distil this spirit from fruit and grains, and, under the delusion that an excess of such spirit taken into his system as drink, will make him happier, he proceeds to intoxicate his senses, lose his reason and degrade his whole being through the identical principle which the Creator uses to create, and exalt and make perfect every creature of His hand. Because a thing is good it doesn't follow a man should make a swinish glutton of himself, debauch his body, deface creation and shame the earth.

Men lose their reason temporarily through drinking intoxicating liquors; they often lose it forever from a false impression or idea that they are gaining enjoyment in the realm of sensualism. Descending to a plane of utterly disiipating the divinest forces extant in nature, wasting their very life and draining their highest vitality in the form of sex-intoxication, as surely destroys the body with the disease called insanity—softening of the brain—as it is frequently termed for courtesy's sake, as that the lightning can blast the splendid tree but erstwhile waving its branches in the happy breezes, expressive of its delights in being.

Elements of Decay in American Civilization.—Dr. F. E. Daniel believes that what sanitary science has done in other countries it can do in this. And this is the task to which the Committee of One Hundred on Federal Legislation, in collaboration with the Association for the Advancement of Science, now addresses itself. While we may never be "civilized" up to a scientific breeding of people (as we do our stock), or totally eradicate disease, it unquestionably lies within the power and scope of science to eliminate much that is evil, and bring about great improvement, even in the next generation, in the physical, moral and intellectual status of society. To this end government should create a Department of Public Health, officered by the ablest men, and beyond the reach of politios, and make an appropriation adequate to meet the requirements, however expensive it may be. It will be true economy in the end. This end,—the elimination of the preventable and the cure of the curable elements of race decay,—is the mission of rational medicine, to which all "exceptional men," the enlightened, should address themselves. Duty requires it; true philanthropy dictates it; policy suggests it, and it is demanded by every consideration of humanity and race integrity. Will Congress heed the warning?

New Orleans Medical and Surgical Journal, July, 1909.

A Clinical Study of the Serum Diagnosis of Typhoid Fever.—Dr. H. P. Brown and Dr. J. H. Kuiter say that from this study we conclude, first, that a positive agglutination test with bacillus typhosus indicates that the patient from whom the blood serum was taken has typhoid fever or has had typhoid fever within a comparatttvely recent period. Second, in the absence of a positive agglutination test the symptoms are due to some other infection, which should be diligently sought for. In some cases it is possible that the agglutinins have not yet developed in sufficient quantity in the patient's blood to give a reaction in a dilution of one in forty. Subsequent tests would clear up this point. Third, the persistent absence of the reaction even in the presence of clinical symptoms of typhoid fever would lead us to give a positive opinion that the disease was not typhoid fever. The most common infections which give a clinical picture of typhoid fever are miliary tuberculosis and paratyphoid fever. No case of the latter infection was encountered in our two hundred and fifty-two cases. That a tuberculous bacteriemia may recover is well established by Landouzy in a paper read at the sixth International Congress on Tuberculosis.

Tuberculous Laryngitis.—Dr. R. B. Howan believes that it is in tuberculosis of the larynx that the most satisfactory results from the use of tuberculin is obtained for the reason that the action of the remedy can be accurately controlled by the local reaction produced in the larynx, and the dosage should be governed entirely by the local findings, That amount of tuberculin should be administered which is necessary to cause a slight stimulation of the local process, which will show as a slight hyperemia. The dose should not be repeated until this hyperemia has disappeared, nor should it be increased until this amount

fails to produce reaction. The effect of tuberculin here is the same as elsewhere. It increases the amount of protective substances found in the blood through a stimulation of the physiological machinery of immunization. Its stimulating effects also cause a local congestion about the tuberculous foci and thus hasteus healing by bringing the protective bodies of the blood to bear upon the tubercle bacilli in greater amounts than is usual in these conditions. This same action has a tendency to prevent the bacilli from spreading to new foci.

Physiological Action of High Frequency Currents.—Dr. A. Henriques draws the following conclusions:

1. High frequency currents, by reason of their great frequency and high voltage, effect the rapid charging and discharging of the cells of the body with electricity.

2. They act without appreciable influence on the motor and sensory nervous system.

3. Their effect is an increase of the metabolic activity of the body cells in general, as evidenced by the increased oxygen absorbed, carbon diovide eliminated, also as shown by urinary changes and by thermogenesis.

4. Their action is accompanied by an increase of heat production and of heat elimination nearly double the normal quantities.

5. The heat elimination is attended by a dilatation of the superficial capillaries throughout the body.

Local high frequency currents are indicated in certain dermatological and superficial affections.

General applications of high frequency currents are indicated in vasomotor disturbances, whether general or localized, and in those diseases caused by defective metabolism, whether of gland or muscle.

The Southern Clinic, June, 1909.

Sulphate of Soda in Cholera Infantum, Acute Gonorrhoea and Acute Dysentery.—Dr. J. Meriweather says that in acute dysentery it becomes a pleasure to treat this disease with sulphate of soda. It will relieve every symptom. When you have a patient with acute dysentery with abnormal pains, griping, tenesmus, composed of mucus, pus and blood, bowels moving ten or more times during the twenty-four hours, give the sulphate of soda every two hours until the pains subside, griping and straining cease, blood, mucus and pus stop passing. Give the sulphate of soda on the second, third and fourth daos, enough to produce three or four evacuations each day until the tongue is cleaned.

Some cases will require quinine and sulpho-carbolate of zinc if the temperature is high, and others when the bowels do not stop moving give subnitrate of bismuth eight grains, powdercd camphor one grain, and extract of opium one-quarter grain every three hours until the bowels are checked.

American Practitioner and News, July, 1909.

Ocular Disturbances During Pregnancy.—Dr. A. O. Pfingst says that in some cases various sized hemorrhage areas are found scattered over parts of the fundus, the result of diseased blood vessels. Visual disturbances vary in these cases and are in no way in proportion to the area of retina involved, extensive pathological changes causing at times slight disturbances of vision, while minute changes may affect the vision perceptibly. High degrees of amblyopia have been observed but complete blindness is rare. Both eyes are nearly always affected, though not always in the same degree. The defect of vision is usually insiduous in its development. It may be mentioned that uremic poisoning may suddenly develop during albuminuric retinitis and cause sudden blindness.

The prognosis with reference to visual acuity is not altogether unfavorable, total blindness being exceptional and improvement in vision after induction of labor being at times quite marked. However, the higher the degree of amblyopia during the pregnancy the less hopeful would be the prognosis for the mother after the removal of the cause.

Hirst, Silex and many others advocate interference with the pregnancy in every case of labor, complicated with Bright's retina. As the danger of permanent blindness increases with the duration of the inflammation, some advocate the induction of labor in these cases if occurring before the 6th or 7th month, and unless retinal changes be very pronounced, the disturbance of function great and urinary examination unfavorable, dietetic and medicinal treatment is advocated when occurring later.

Streptocci.—Dr. E. S. Allen believes that as the streptococci does not excite in the resident cell any protective elemeut, but combining with the cell protoplasm, causes such a rearrangement of its chemistry that if it is not at once paralyzed and undergoes retrograde changes, that it gives off a secretion, the chemistry of which must be different from the original secretion, and is toxic—for we know that degenerated albuminoid products are most toxic. In conclusion let me say that having received so little encouragement from our streptococci antitoxinic and what result is favorable is

probably due to the leucocytosis generated by the horse serum alone that it might be well to turn our attention to agents that have to do with bringing up the white blood cell number, and then stimulate the white blood cell, say of the horse, to protection by injecting dead streptococci—and instead of trying to get an antitoxin in the serum of the horse—extract the leucocytes by centrifugal means, and make an emulsion of the white cells, for in them we have only the protective agent against the streptococci. The same precaution probably would have to be observed—as in antitoxin, to get several varieties of streptococci, or probably by culture media develop the streptococci to its typical long chain-form; all other varieties being probably lowed in the evolutionary stage from the sophrophyte to the obligate micro-parasite.

Virginia Medical Semi-Monthly, July 9th, 1909.

Treatment of Consumption.—Dr. W. H. Coffman says that a patient who is bleeding freely should be put to bed as soon as possible, and should be propped straight up, comfortable, with a bowl or other large receptacle containing a little water, in his lap, so that when the gushes of blood come he may be able to dispose of them with the least possible exertion. He should be kept in bed for at least ten days after the bleeding is over, because it takes about this length of time for the organization of the clot, which is nature's means of stopping the bleeding. He should have a small hypodermic of morphia to control the cough and the nervousness from which so many bleeding patients suffer.

Of drugs, nitrite of amyl is probably the only one that has any immediate effect on pulmonary hemorrhage. Calcium chloride is said to be useful in controlling the tendency to bleed. It may be given in five grain doses every three hours, until five or six doses have been given; then, three times daily for about three days.

Many cases may be controlled by lowering the blood pressure. This may be done by giving large doses of epsom salt; also, by the use of such remedies as veratrum viride.

In view of the fact that any patient with an open cavity is liable to bleed, it is well to have an occasional record of his blood pressure, so that when he does bleed you will be in a position to know when you have reduced the blood pressure enough. Fifteen to twenty points are usually sufficient. There are, however, a few cases in which veratrum viride does no good, that are promptly checked by the use of adrenalin. It is probably well to restrict for one or two days after a hemorrhage the patient's rational food, or, at least, the fluids.

Etiology and Pathology of Summer Diarrheas of Children.—Dr. E. P. Torupkius points out that at one time it was thought that sterilizing would do away with most if not all the bad effects of impure milk. But sterilized milk is cooked milk, and Nature never intended babies to live on cooked food. Heat sufficient to kill some of the harmful bacteria is sufficient also to destroy the beneficial ones which hold in check or destroy the dangerous ones. Yet this is not all the damage heat will do, and a lower degree of heat even than that required to kill the microbes. For instance, Hippius and Spolverini have proven the presence, both in mothers' milk and in cows' milk, of a ferment which is destroyed or enfeebled by only a moderate amount of heat. Spolverini says that the sterilization of milk produces six disadvantageous changes in it, namely:

First.—It expels the carbonic acid gas which stimulates the secretion of the gastric juice.

Second.—Diminishes the amount of lime and free phosphoric acid, increases the insoluble calcium phosphate, and precipitates the anti-scorbutic citric acid.

Third.—Destroys a large part of the lecithin of the nuclein.

Fourth.—Coagulates the soluble albumin and changes and renders unabsorbable the casein.

Fifth.—Unites the fat globules in larger masses which are less easily digested and absorbed.

Sixth.—Destroys or weakens the ferments, and thus are lost to the child antitoxic and immunizing compounds of great value.

Scarlet Fever.—Dr. J. D. Morgan says that if there is one thing he is positive about in scarlet fever it is that suitable warmth to the body and milk diet give the best results. It was Jaccoud who laid such stress upon the sole use of milk. There are few or no cases that do not show a trace or more of albumin; and time and again the patients have been given animal broths, eggs, etc., only to see the albumin increase. Thompson regards nephritis as part of the disease, and urges care in the diet, which should be milk and cereals for the first three weeks. K. Oppenheimer warns against allowing the patient to become chilled. The diet, he says, is more important than in any other infectious disease, on account of the tendency to nephritis. Rubens holds his patients to strict dietetic measures, avoid-

ing all nitrogenous food and alcohol, and giving mainly a milk diet. In that way he wards off serious kidney complications.

The use of opium in any form has been found very pernicious. Quieting and rest in nervous cases can be easily attained by bromides and chloral.

As a purgative, nothing is better than a little Rochelle salts flavored with orange or raspberry juice.

Many ear troubles are brought about by too much spraying and improperly blowing of the nostrils.

Richmond Journal of Practice, May, 1909.

Adhesion of the Placenta.—Dr. W. R. Wilson says that recent research has demonstrated that the fetal layer of the decidua has a tendency in abnormal cases to penetrate toward the uterine wall, thus invading the spongy or material layer of the decidua. As a consequence, the villi attach themselves to the wall of the sinuses, establishing a direct adhesion between the fetal decidua and the musculature. The cause of this change is no longer considered as of inflammatory nature, but is thought to arise from the improper nutrition supplied to the chorionic villi in the pressure of atrophy of the decidua. In other words, the fetal portion of the placenta penetrates in the direction of the blood supply in cases in which nutrition is defective. This is illustrated in cases of placenta previa where it has been found that the abnormally placed placenta has been extremely adherent, the lower segment of the uterus being deficient in its power to nourish the decidua. In the treatment of adhesion of the placenta the operator should not fail to be warned of the condition if the third stage of labor is unduly prolonged and extrusion of the placenta does not follow compression. The shock which succeeds the removal of adherent placenta should be anticipated in caring for the patient.

Gaillard's Southern Medicine, July, 1909.

The Thyroid Preparations in Practice.—Dr. C. E. de M. Sajous says that in the infectious tonsillitis, desiccated thyroid clears the field very promptly. It does so, of course, by enhancing the bactericidal and antitoxic powers of the blood and glandular secretions. The bacteria being rendered more sensitive—that is to say, more easily digestible, they readily become the prey of the phagocytes which are extremely numerohs in the tonsils. Pulmonary tuberculosis, before the disease is sufficiently advanced to compromise the whole mechanism of respiration, that is to say, during the first and second stages, is especially vulnerable to the action of thyroid. The tubercle bacillus which, as you know, is also pathogenic when dead, owes its morbid action to an endotoxin rich in phosphorus; being thus rendered extremely inflammable while the blood's oxidizing power is enhanced simultaneously, this pathogenic organism is promptly destroyed. This applies also to lupus. In syphilis, the use of thyroid, based on the views I have advanced, has been termed "marvelous" by other observers. It has been used with success in acute infections, including the exanthemata which may often be curtailed by its judicious use.

The Alabama Medical Journal, July, 1909.

The Wasserman Reaction for the Serum Diagnosis of Syphilis.—Dr. J. P. Long concludes that the serum reaction for syphilis is specific. It is found positive in from 90 per cent. to 98 per cent. of all cases, with syphilitic manifestations. It is found positive in 50 per cent. to 60 per cent. of latent cases.

It is found positive in from 70 per cent. to 80 per cent. of meta and para-syphilitic diseases.

The reaction is in many cases influenced by treatment of the patient, and it is not improbable that this number would be greatly increased if the reaction were pursued throughout prolonged treatment. This has recently been confirmed by Lesser, who found that in practically every case treated long enough, the reaction disappeared.

A positive reaction indicates syphills. A negative reaction does not have an equally negative value.

It is diagnostic of a systemic infection, whether acquired or inherited, and not an organ diagnostic measure.

The reaction will be found of enormous advantage in differential diagnosis, in every department of medicine, and as an index to treatment.

A Report of Six Cases of Perforating Wounds of the Intestines.—Dr. J. W. Watts says that the abdomen was freely drained and in all cases the incisions were closed with through and through silk worm gut sutures. In most cases the following orders were given: Fowler's position for first twenty-four hours, strychnine sulphate gr. 1-30, morphine sulphate gr. 1-4; Spartine gr. 1-2 every three hours, and Saline enema with whisky 1 oz. every two hours—liquid diet for seven days.

The author believes the main problem in dealing with gun shot and other perforating wounds of the abdomen is that of operating early. For at least six hours after receipt of the injury the bowel is paralyzed and unless there is a very large tear in the gut

there will be little or no extravasation. After six hours have elapsed, peristalsis is re-established and extravasation occurs with rapidly spreading peritonitis.

If operated on within the first six hours, the result as illustrated in this series of cases will be uniformly good.

After this the prognosis becomes more unfavorable generally as the time progresses. As much rapidity in operating as is compatible with careful work, free stimulation and in the presence of shock and hemorrhage, together with drainage and Fowler's position, aid materially in the patient's chance for recovery.

Richmond Journal of Practice, June, 1909.

Surgery of the Peripheral Nerves.—By Dr. J. S. Horsley, Richmond, Va.

Atlanta Journal-Record of Medicine, July, 1909.

Tonsillectomy versus Tonsillotomy.—Dr. H. H. Lokey gives the following description of the operation:

After the patient is anæsthetized, if with a general anæsthetic, keep the mouth open with a mouth gag, and with a tongue depressor, placed well back of the base of the tongue, expose the field of operation and with Leland's tonsil knife separate the faucial pillars from the tonsil. Then with a Marquis forceps, passes through the loop of Farlow's snare, and with the tongue depressor in the hands of my assistant, the tonsil is drawn out towards the median line and the loop of the snare forced well down over the tonsil, being careful to avoid having the uvula within the loop. Then grasp the snare with both hands and with one grip remove the tonsil. The Farlow snare is supplied with a screw mechanism by which it can be more slowly removed, but do not use this except at occasional times. After the operation, wipe the blood from the throat and inspect the field. If there are any fragments of tonsil left, remove them with the Roberts' or Farlow's punch. Then take a piece of wet gauze, wrap it around the finger and make several sweeps between the pillars across the raw surface. This aids in freeing the wound from fragments of tissue and also assists in checking the hemorrhage.

Pellagra.—Dr. E. S. Cross believes that it is not impossible that further investigation may show a relationship among these similar conditions. Pemphigus, leprosy, egotism and dermatitis venenata may have to be eliminated by the history and course.

Acute cases of pellagra are practically always fatal. Patients in the earlier stages of the chronic form may be entirely relieved by change in diet. The outlook after mental change has appeared is, of course, unfavorable.

Aside from removal of the patient from unhygienic surroundings and the substitution of a suitable diet, treatment is largely problematical. Arsenic has, perhaps, met with greatest favor and may be very well given as atoxyl, hypodermically. Local conditions are to be met symptomatically. Iodine is said to relieve the burning and itching of the skin lesions. Protargol in doses of 1-3 of a grain daily has been advocated for controlling the intestinal conditions on the theory that an aspergillus, susceptible to small amounts of silver may play a part. Hydrotherapeutic measures are useful to combat certain of the nervous symptoms, but cases with chronic mental change require asylum care.

Indigestion Due to Causes Commonly Removable by Surgery—Dr. E. G. Jones says that of twenty adults complaining of stomach trouble of chronic duration it is perhaps conservative to say that twelve have affections with which surgery has nothing to do; the remaining eight have (1) appendicitis, or (2) gall stones, or (3) ulcer or cancer, or (4) an obscure lesion such as perineal adhesions, hernia, cecal tuberculosis, etc.

If these persons are under forty the proportion of appendix and ulcer indigestion will be increased at the expense of the cancer and gall stone indigestion; if they are beyond forty the cancer and gall stone indigestion will be increased at the expense of the appendix and ulcer indigestion.

Eight of the twenty, therefore, can be offered no reasonable hope of a permanent cure by medical measures. They can all be offered much by surgery—except the cancer patient, and of all visceral cancers, gastric carcinoma is perhaps the most surgical if diagnosed early.

Virginia Medical Semi-Monthly, July 23rd, 1909.

The Influence of Sleep on Arterial Sclerosis.—Dr. W. W. Beveridge points out that where individuals are so situated that sleep is impossible, as soldiers on the march, or sailor at sea in a storm, an unusually long period of sleep is necessary to compensate for the long delay. Not only does this pertain to the human race but to animals as well, for all know that animals well housed and worked only during regular hours and with regular hours for sleep, require much less feeding and do better than those otherwise attended.

This theory has economic value only in so far as it can be applied to every day life.

The author believes that a more thorough understanding and observance of the natural phenomena attending sleep would have definite value and application to the affairs of health; that the retrograde changes incidental to old age that are ushered into middle life long before the individual should show signs of physiological death might be averted by a more careful study of the processes that apply the nutritional products direct to the cell. Whatever sleep is, it is the process, or presides over the processes that convert food into the organic life of a cell. The life of the organism is a cellular life. The life of the cell depends entirely on the integrity of its repair.

Surgical Diseases of the Kidney.—Dr. J. G. Sherrill says that in microscopical search for the tubercle bacillus in the urine great care must be observed not to confuse this organism with the smegma bacillus. Recent investigations by Young and Churchman have shown that smegma bacilli are surface organisms, and that it is easily possible by a process of retrograde irrigation to completely wash them from the surface of the urethra. Careful sterilization of the external parts is, of course, essential before the irrigation is commenced. When these measures are correctly carried out the ordinary staining methods may be employed for the detection of tubercle bacilli.

Book Notices.

Manual of Therapeutics. Parke, Davis & Company, Detroit, Mich.

This little volume of 650 pages, bound in flexible leather, contains a fund of information in a compact form which, alone, makes it very valuable, not to say anything about the convenience and necessity of knowing the exact drugs and their percentages entering into the various specialties. The description of drugs and their therapeutic indications are given concisely, and altogether a wide range of material, as the appended "contents" shows, is embraced.

Contents: Weights and measures, the metric system, percentage solution table, thermometric equivalents, average weights and measurements of adult human organs, average weights and heights, respiration at various ages, facts regarding the temperature, the pulse at various ages, dentition table, doses proportionate to age, the care of surgical instruments, obstetric calendar, baths in common use, important abnormal constituents in urine, the urinary solids, differential table of eruptive diseases, directions for modifying milk for infants, percentage composition of various foods, percentage of nutriment in certain articles of food, approximate time needed for the digestion of some principal foods, alcohol in various liquors, substances excreted in milk, notes on feeding, diet tables, hypodermatic medication, poisons and their antidotes, eruptions caused by drugs, important incompatibles, synonymous terms, medical Latin translated, leading remedies classified, "shall the doctor trust to chance," therapeutic suggestions, materia medica.

As the "manual" is to be had for the asking the edition of 40,000 ought soon to be exhausted.

The American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, M. D., editor "The American Illustrated Medical Dictionary." Sixth Revised Edition. 32 mo. of 598 pages. Philadelphia and London: W. B. Saunders Company, 1909. Flexible leather, gold edges, $1.00 net; thumb indexed, $1.25 net.

The popularity of this book was such that the fifth edition was larger than any previous edition. Hence it is that the editor has been encouraged in a special effort to make the present edition reflect the advances of medical literature. The fact that the work has been steadily growing in favor must be a source of gratification to both editor and publishers.

For the present edition the text has been fully revised and many hundreds of new words have been added. Most of these words are not to be found in any other book of its class.

The improvements made in the present edition will insure an increased utility of this little volume.

It is handsomely printed on thin paper of good quality and bound in limp leather.

Tuberculosis: A Preventable and Curable Disease. By Adolphus S. Knopf, M. D. New York: Moffat, Yard & Co., 1909.

This volume is presented to the medical and lay public with a view of placing before each the most important points in the prevention and cure of tuberculosis. It is intended to show that tuberculosis is a preventable and curable disease, rarely hereditary, and that in children of tuberculous parents the pre-disposition can be overcome through hygienic and dietetic precautions. The book is serviceable, therefore, to the physician, to the patient actually affected, and to that portion of the public who are interested in the fight against the white plague.

The chapters are devoted to those points that tuberculous patients should know of their disease, to the duties of the people in general, the duties of the physician, the family of the patient, the community in

which he lives, etc., to the sanitorium treatment, to the duties of modern municipal health authorities, etc., etc.

The book is adequately illustrated, well indexed, and is in large type.

Dr. Knopf has succeeded admirably in presenting a volume containing what the patient should know and eliminating that which he should not know of his disease.

Atlas and Epitome of Ophthalmoscopy and Ophthalmoscopic Diagnosis. By Professor Dr. O. Haab, of Zurich. Edited, with additions, by George E. de Schweinitz, M. D., Professor of Ophthalmology, University of Pennsylvania. Second Revised Edition. Philadelphia and London: W. B. Saunders Company, 1909.

The second American edition of Haab's Atlas of Ophthalmoscopy is an excellent work for all students of ophthalmology, as well as for those who are interested in the subject. It is of convenient size, well printed, and the chromo-lithographic plates are very good representations of the conditions depicted. The first part of the work is devoted to a description of the technique of ophthalmoscopy in all of its phases. Then follow the colored plates. A description of each plate is found on the page opposite to the plate. There are a number of colored plates illustrating the pathology of many of the diseases of the retina and choroid. These are fully described. The work is quite complete and we take pleasure in recommending it.

Principles of Pharmacy. By Henry V. Arny, Ph. G., Ph. D., Professor of Pharmacy at the Cleveland School of Pharmacy, Pharmacy Dept. of Western Reserve University. Octavo of 1175 pages, with 245 illustrations, mostly original. Cloth, $5.00 net; Half Morocco, $6.00 net. W. B. Saunders & Co., Philadelphia, 1909.

The subject of pharmacy as understood by the writer consists of the practical application of the sciences of physics and chemistry to medicines and their preparations, as well as sufficient botany to appreciate the character of those vegetable drugs entering into pharmaceutical preparations. An explanation of the principles underlying the science of chemistry is given in brief introductory chapters to Parts III. and IV. While not desiring to hamper instruction by artificial limitations, the entire subject of pharmacy is so vast that some gleanings of essentials from those substances of minor importance appeals to teachers as imperative, and we are fortunate in having a means of elimination in the use of our national standard, the United States Pharmacopeia. Of course, no pharmaceutical instruction would prove sufficient were all unofficial drugs excluded, but the existence of a pharmacopeia makes it possible to use that work as the basis of instruction, and in drilling the student in official substances, ample opportunity is afforded to refer to those unofficials suggested by the pharmacopeial preparation under consideration. This book explains the pharmacopeia from its pharmaceutical standpoint, and if that standard says that a certain chemical is "dextrogyrate ketone," or that a certain drug is a "sclerotium" the average student should be able to learn what such terms mean without having to search through a dozen books. The author disclaims all attempts to offer this as a text-book in chemistry or botany.

The book consists of seven parts:

Part I. deals with pharmaceutical processes and a striking feature is the discussion of the arithmetic of pharmacy.

Part II. deals with the galencial preparations of the pharmacopeia and those unofficials worthy of notice. It will be noticed that, wherever possible, these preparations are grouped around a typical pharmacopeial receipe, thus avoiding repetition.

Part III. deals with the inorganic chemicals used in pharmacy, has an introductory chapter on chemical theories, and discusses chemical arithmetic very fully.

Part IV. discusses the organic chemicals used in pharmacy, and that according to the most modern classification. Like Part III., it begins with an introductory chapter on the theory of the clsss of chemicals discussed.

Part V. is devoted to the chemical testing, and presents a systematic grouping of all the tests of the pharmacopeia, a feature not found in any other book.

Part VI. takes up the prescription from the time it is written to the time it is dispensed.

Part VII. gives the laboratory work which has been followed with much success by the Cleveland School of Pharmacy. A notable feature of this part is the exercise in equation writing and in chemical arithmetic that the work affords.

The volume is well illustrated and will prove of great value to the practioner and student.

A Magazine of Merit.

Having rounded out its first five hundred months of existence with the August number, LIPPINCOTT'S MAGAZINE starts out with September as though it could see a far longer vista of months and years of life ahead of it. And there is no reason why it shouldn't, so long as its present high quality is sustained.

The novelette for September has a sur-

prising plot, and is called "A Bride for Casey." Ella Middleton Tybout stands sponsor for it, and those who have read her books "The Wife of the Ambassador," etc., can testify that she knows how to write a good story. "Casey" is one of four impecunious young society men living in New York. In order to acquire the cash necessary to carry out the cherished plans, it is decided that Casey must marry a rich girl, and the others undertake to find him a suitable mate. It becomes necessary at one stage to dispose of the maiden aunt of a certain young lady, so they contrive to ship her off to Boston until her presence is no longer a menace. Her disappearance helps things along, for charges of robbery, abduction, and murder are promptly brought against the quartet by the police. The end is unexpected to everybody—and to Casey most of all. The characters are splendidly drawn, even the minor ones, and the whole tale is invested with an air of plausibility, despite the preposterous plot.

The September short stories are a strong collection. "What Happened to Father" is an amusing yarn by May Roberts Rinehart, whose books, "The Man in Lower Ten" and "The Circular Staircase" have recently brought her fame and fortune. "Aunt Dianthy," a powerful yet pathetic tale of a neglected old woman, is by George Allan England. Other noteworthy stories are "A Question of Honor," by Hornor Cotes; "The Shadow of Molly Kinshlea," by Josephine Van Tassel Bruorton; "Between Trains" by Thomas L. Masson; "The Death Sentence," by Caroline Ticknor; and "An Unwilling Intrusion," by Percy Wilson. Thomas L. Masson contributes a blithe sketch called "When to Tell the Parents," which will be enjoyed by all fathers and mothers, and by some children.

"A Patchwork Quilt of Humanity," by Day Allen Willey, is an interesting special article on our newest State, Oklahoma. "Character-Leakage" is the famous nerve specialist who wrote that remarkable little book "Why Worry?" In the department "Ways of the Hour" W. Barton Blake discourses on "The Bigness of Things"; Ellis O. Jones, on "The Things We Cannot See"; and Phil Cullom, on "The Sin Argument" Walter Pulitzer contributes some "Cogitations" in epigrammatic form.

There are charming verses by John Kendrick Bangs, Florence Earle Coates, and other well known singers; and to top off with them are sixteen pages of brand new jokes, jingles, and anecdotes. Only a very captious critic could find fault with the September LIPPINCOTT'S.

A Candid Judge.

A Dover lawyer tells a story in which figures the Hon. H. L. Dawes, who, it seems, in his younger days was an indifferent speaker. Shortly after his admission to the bar he had a case which was tried before a North Adams justice of the peace, and Dawes was opposed by a lawyer whose eloquence attracted a large crowd. The justice was perspiring in the crowded room and evidently fast losing his temper. Finally he drew off his coat and, in the midst of the eloquent address, burst out:

"Mr. Attorney, supposing that you take a seat and let Mr. Dawes speak. I want to thin out this crowd."—August Lippincott's.

Abstracts of the Leading articles of the month.

Acute Necrosis of Skin.—Coombs in The British Medical Journal reports the case of a woman whose illness began with intermittent fever, pain along the course of the sciatic nerves, followed after a few days by the appearance of bullæ like those of ecthyma near the tuber ischii. These bullæ formed sores which healed in the course of three months. Later a bulla appeared on the inner side of the right knee, and in the course of two months the whole skin was gone from the right leg. The process usually began by the appearance of serum under the epidermis at the growing point of the narcotic area; the cutis vera died in a few hours; when it was cut off granulations were found growing beneath. Eighteen after the disease started the whole surface skinned over. Some six months later the skin began to die again, and the patient's temperature was above 99 for twenty-five weeks, the highest being 104. The treatment consisted in quinine and iron throughout the illness. Opium was given at night and was added to the ointment composed of lanoline containing tincture of benzoin. Boric acid in carbolic solution was used at first and idoform was added later, and the edges of the wound were painted with peroxide of hydrogen. At the beginning of the second attack the sores were ionized, but it seemed that the hydrogen peroxide and iodoform lotion had a better effect. The case is remarkable because of the persistance of the high temperature, the appearance and progress of the sore, and the fact that the first nurse had to leave because her hands became infeeted, suggesting a bacterial cause. Syphilis and tuberculosis might be dismissed, as the patient and her children had never shown any tendency suggestive of either.

Prognosis in Tetanus.—Patton in The Dublin Medical Journal mentions two cases in which antitetanus serum was used freely and yet the course of the disease and the results were quite different. The first case, a miner, aged 52, with a large fungating mass on the outer aspect of the left thigh of two years duration. A large tender swelling was also found in the hypogastric and left iliac region. He presented the symptoms of tetanus, but under the injection of antitetanus serum and the daily application of hydrogen peroxide the patient improved and it was possible to amputate the leg. afler which he recovered. The tetanus bacilli were found in large numbers in the epitheliomatous mass. The second case was a man, aged 38, who presented the symptoms of tetanus a week after having sustained an injury to his thumb, dislocating it at the interphalangeal joint and breaking the skin so that the head of the second phalanx protruded through the aperture. The finger had been steeped in carbolic solution 1 to 40 for a half hour before reduction and had been dressed daily afterward. Suppuration started, however. In spite of large doses of antitetanus serum the patient had a spasm on the morning following his admission to the hospital. Chloroform was given, and although pulse and respiration ceased, they were ultimately re-established. The following morning the patient had another spasm and died. At autopsy pus was found in the tendon sheath extending to the elbow and containing the tetanus bacillus. It seems evident that the difference in the results in these was due to the difference in the site of the infection and the facility for multiplication offered to the bacillus. The conclusion to be drawn is that the synovial fluid of the tendon sheath is an excellent medium for the growth of the tetanus bacillus and that steeping in carbollic will not prevent the occurrence of tetanus if the tendon sheaths are exposed. When tetanus has occurred the sheath of the tendon should be freely opened up, even although there is no apparent necessity to do this. Hydrogen peroxide is capable of destroying the tetanus bacillus if the microorganism and the remedy can be brought into intimate contact. It is impossible to say whether the antitetanus serum was of any value or not in these cases.

Treatment of Tuberculous Peritonitis by meaas of X-rays.—Allaria and Rovere (Arch: de Med. des Enf.) have treated seven cases of tubercular peritonitis by means of Roentgen rays. Undoubted cure was obtained in only one case out of the seven. In one case there was undoubtedly good effect on the generalization of the disease. In some cases there were no bad effects, even if no benefit resulted. The treatment caused a slight and inconstant increase of leukocytosis. The authors believe that we should be careful in the use of this means of treatment in tuberculous peritonitis, since it is unreliable in its effects. In some cases it is positively curative, not by destroying the bacilli, but by the stimulation of the cells of the peritoneum. In the ascitic form, we may hope for benefit from the rays used moderately and with great care. The action should be most carefully observed and the treatment stopped as soon as bad effects are noted.

New Methods of Treatment of Gastro-enteritis.—Bouquet (Bull. Gen. de Ther,) calls attention to two systems of diet of exactly opposite character, both of which are used in the treatment of gastrointestinal complications in infants. One is the water diet, modified by the administration of leguminous or cereal broths, or solutions of chloride and bicarbonate of soda, the object of which is to replace the water drained from the system by the frequent stools, at the same time that fermentable food materials are removed from the diet. When we have initiated the water diet and fermentation has ceased in the bowels the question comes up, and is forcibly brought before us by the mother, how long we can safely keep the little patient on water alone without starving him to death. One of the gruels that is used to give some apparent food value, slight though it be, is prepared from potatoes, carrots, turnips, dried peas, and dried beans, boiled for a long time in a large amount of water, filtered and salted. Another is made of cereals, wheat, pearl barley, dried peas, beans and lentils, treated in the same manner. The diminution in weight of the child ceases and he stops vomiting. Other physicians have given to replace pure water a solution of chloride and bicarbonate of soda. This also prevents loss of weight when combined with broths. The ingredients of these broths seem to have nutritious value, and yet are not fermentable, and the public accepts them gladly. Their real value is in lessening dehydration. Subcutaneous injections of normal salt solutions, and high saline injections have the same effect, but the injections render the bowel irritable after a time. The dry diet has for its object limitation of the amount of liquids taken by the patient. The food consists of eggs, dried cakes and cheese, with a minimum amount of liquids. Its object is to lessen dyspepsia due to the taking of a large amount of milk, in order to obtain a sufficient amount of solids to susiain life. The ingestion of lac-

tic acid bacteria is dependent on their destruction of the bacteria of fermentation in the stomach and intestine. They are administered in the form of bouillon. Intestinal irrigation is less used than formerly. The only medication that seems of value is opium, to control vomiting and stools, and gelatine. The intestinal antiseptics seem of little real value. Gelatin causes lessening of the number of stools; the green color disappears, the bad odor ceases, and the acid reaction passes away. It is administered in a warm sterilized solution, with care not to give cold drinks at the same time.

Inguinal Hernia.—McGavin in The British Medical Journal says that the complete and permanent cure of inguinal hernia depends on: (a) The total abolition of the peritoneal sac or sacs; and it must be remembered that one of these may be thick walled and perfectly obvious, while another may be present which is of the most extreme tenuity, difficult to find, with a lumen only admitting a probe, and yet quite capable of enlarging one day to greater capacity, (b) The permanent approximation of the muscular structures of the inguinal canal to Poupart's ligament. (c) The maintenance of the histological character of these structures by careful operative technique and by the subsequent employment of properly regulated physical exercises. And (d) on the prolongation of convalescence in the recumbent position for a period much beyond that which is usually accorded to these cases. It is easy to see that while the first and fourth of these essentials present no very great difficulty, the second and third are not so simply attained. The gap to be covered may be enormous; the musculature may be attenuated, friable, and fibrous, and thus it may be that the whole inguinal canal presents such a wreck that the possibility of a cure seems quite out of the question. In other cases, although the structures may be in fair condition, the amount of dissection required to accomplish the approximation, especially in old standing and recurrent cases, and possibly the tension necessary to keep muscle and ligament in accurate contact, are such that, within a few weeks of the operation, what was muscular is reduced to fibrous tissue. Now the muscle which is brought down is brought down with a very definite object; its purpose is not merely to block the canal passively by its presence (the peritonæum and the abdominal aponeurosis would of themselves do that), but by its active contractions to tighten up the walls of the canal without suffering permanent loss of elasticity in doing so. When an operation has been done and the trouble recurs, it is not muscle which is found covering the sac; what is found is merely the fibrous remains of the stretched union, the muscle having receded to a point above the level of the canal. Had the muscle been sound and active, and had it remained in close apposition to Poupart's ligament, recurrence would have been impossible. It is therefore clear that to get a permanent result which shall honestly reserve the term "radical cure," a term hitherto much misused, is not by any means so simple as it would at first sight appear. Bassini's operation, when done early in the history of a hernia and followed by sufficiently protracted convalescence, is an excellent operation in most cases; there are others, however, in which it fails to meet the requirements of madern surgery, and these may be said to be the following: 1. Those of inguinal hernia in elderly subjects. 2. Those in adult life where the strain of certain occupations is so constant and severe upon the abdominal walls, that it is unreasonable to expect a cure when treated by the ordinary methods. 3. Those in which, although in young subjects, the muscular structures of the part are found at time of operation to be thin, badly developed, or stretched and loose over a large area. 4. Those in which the hernia has recurred, especially if after a carefully carried out operation followed by a primary union. 5. Those in which the hernia is of such size that the gap cannot be closed without the exercise of such tension as to produce strangulation of the structures within the grip of the sutures—a condition which is one of the most certain of all the predisposing causes of recurrence.

Diphtherias with Invisible Location (Crypto-Diphtherias).—Abrand (Ann. de Med. et Chir. Inf.) calls our attention to the occurrence of cases of diphtheria in which the membrane is not visible, yet which have the characteristic diphtheria syndrome. In these cases the membrane may exist in the nasopharynx, larynx, bronchial tubes, trachea, or esophagus. These locations are quite frequent in cases of the ordinary diphtheritic angina, but are most important when the membrane does not appear on the pharynx and tonsils, the usual locations of membrane. Such cases are liable to be diagnosticated late in the disease, after the poison has had a chance to act on the general system, and are liable to paralytic and heart complications as the first symptom noticed of the action of the diphtheritic poison. He calls them crypto diphtherias. He describes six cases which came under his observation. They show how important it is to make a careful ex

amination of every obscure case which comes into a hospital, using the laryngeal mirror. The admission of such a case to a general ward endangers the other patients, and ths appropriate serum treatment is not given early enough to prevent serious complications, even death. The symptoms that are suspicious are a rapid loss of weight, extreme fatigue, rapid pulse, marked swelling of the glands of the neck, with or without high fever, polypnea, or dyspnea, that are inexplicable. Such cases need energetic antidiphtheritic treatment.

The Remedies for Depopulation.—D'Anfreville (Presse Med.) mentions the methods of preventing depopulation and its causes. The causes are pathological and social. The principal causes that are pathological lie in the sterilization that is produced by gonorrhea and syphilis, preventing many married couples from having children. Another such cause is alcoholism, which deteriorates the parents and causes weakened heredity and bad surroundings for the children. The social causes are the unwillingness of couples to live moderately and to risk being able to support large families, and the desire to leave a large property to a single child. The remedies that have been tried in France are various. It has been proposed to make a law taxing the bachelor, and an income tax which will decrease in amount as the number of children increases. The better measures to try, and such as have been already successfully carried out in France, are giving aid to the pregnant woman to obtain a support without undue exertion in the latter months of pregnancy, and cheap restaurants where she can obtain good, nourishing food for herself and her children at a minimum cost. Another way of increasing population is to take care of the young infants, as is done in the consultations for infants and nursing mothers, where good milk is supplied, and good counsel given to the mother, the infant being treated when sick, and advice given as to care and feeding when well.

Tubercular Peritonitis in the Nursling.—Weill and Pehu (Arch. de Med. des Enf.) say that primary peritonitis of tuberculous origin is comparatively rare. Tuberculous peritonitis occurring in the course of generalized tuberculosis is not uncommon, but the primary form is not frequent. They published two personal observations. Tuberculous peritonitis in the nursling is characterized pathologically by a marked predominance of the caseous form of tuberculosis, by the generalization of lesions, and by a frequent occurrence of infection of the genital organs, male or female. The symptoms consist of crises of pain in the abdomen, progressive increase in the size of the abdomen, diarrhea, tenderness, and ascites. The course of the affection is afebrile. There is often a purulent flow from the vagina. Rectal examination will show the existence of periuterine, prostatic, or seminal lesions. There may be an umbilical fistula. The glands are generally involved. The general condition is very bad, and the evolution of the disease is toward death. Nevertheless there are cases that are capable of cure. The ascitic forms are more curable than others.

Value of Kinesotherapy in Uterine Hemorrhage.—Bloch (Jour. de Med. de Paris) thinks well of kinesotherapy in the treatment of all sorts of uterine hemorrhages, and gives several examples of its value. It regularizes the menses, diminishes their duration and the frequency of appearance. All menstrual troubles, all uterine hemorrhages, from the simplest troubles to symptomatic hemorrhages of fibroma, salpingitis, retrodeviations, and metritis, are benefited by it. It includes massage and gymnastics. The massage consists of circular movements over the abdominal wall. The gymnastic movements are for the purpose of lessening congestion of the pelvic organs, by movements of the femoral abductors, given three times a day. The movements must be executed with great care not to fatigue the patient, and should be done under the direction of the physician himself. The action is mechanical and causes reflex action at a distance, reacting on the circulation. Circular movements exerted over the intestines cause vasomotor alterations, and increase the activity of the circulation. The vessels are hemiparetic in hemorrhagic pelvic conditions, and these movements tone them up to a normal action. The abductor movements crowd back the blood from the engorged territory into the other veins. Among the most valuable means of treatment for arresting uteroadnexal hemorrhage is kinesotherapy. It allows the patients to continue their ordinary occupations, and is absolutely harmless. It should be used carefully and gently and not prolonged. It is most valuable to regulate the menses.

Serum Treatment of Diphtheria Intoxication.—Meyer (Berl. klin. Woch.) describes experiments made on dogs poisoned with injections of diphtheria toxin and then treated with antitoxin, as to the effect of the serum on tue heart symptoms. In acute toxemia with heart failure he found that the serum treatment would prevent the occurrence of heart failure, but that when the symptoms had developed it

had no effect on them, and death ensued. These hypertoxic cases required large doses of serum by intravenous injections. The best method of treating heart failure attacks was by the use of adrenalin. In cases that were diagnosticated late and treated after severe attacks had taken place intravenous injections of serum were beneficial, and large doses were indicated. Heart changes in diphtheria were prevented by the use of serum, and post-diphtheritic cachexia was prevented or was benefited when it had occurred. From these experiments it would seem that large doses of serum injected intravenously were indicated in all severe cases of diphtheria in man.

Spinal Analgesia.—McGavin and Williams (Edinburgh Medical Journal) report 250 cases of spinal analgesia by the use of stovaine glucose solution. They observe that spinal analgesia is a method which has a definite place and use in modern surgery, and of which the future is no longer in doubt. Stovaine is admirably suited to the purposes of spinal analgesia, and is probably as safe as any other analgesic at present in use. The risk of infecting the spinal meninges is, in proper hands and where proper precautions are taken, very slight. The method of spinal analgesia is unsuited to the Trendelenburg position. Failure to reach to reach the spinal theca is usually due to faulty technique, while failure to obtain sufficiently high analgesia is commonly due to insufficient dosage, and is to be met in most cases by a second injection. The attempt to push the analgesia to a higher level than the fourth dorsal area is, in the present state of our knowledge, unwise. The lateral position, although rendering the injection rather more difficult that the sitting position, is less likely to be followed by disquieting symptoms, and commonly gives better results. The great majority of patients are in favor of the method, preferring to retain consciousness so long as the area of operation is screened from their view. In support of this many patients have elected to have spinal analgesia for second operations. The contraindications hitherto summarized by various writers must be accepted with reserve, owing to the lack of detals supplied, and the great variety of methods, analgesics, and doses employed. Sepsis, syphilis, and old age do not appear to influence the reaction of the patient to stovaine. The action of stovaine is purely one of surface effect resulting in the blocking of nervous impulses, and probably affecting only the anterior and postertor nerve roots. The method being but a special branch of the science of anæsthetics, its administration and investigation should be undertaken by the anæsthetist rather than the surgeon, and especially so since at times its application may fail from various causes and necessitate the administration of a general anæsthetic.

The Need for More Prompt and Thorough Treatment of Children Suffering From Rheumatism or Chorea.—Lees. (British Journal of the Diseases of Children), mentions the great responsibility of the medical man called upon to treat a rheumatic or choreic child. He has the chance to arrest in its earliest stage a morbid process, which if uncheeked, may be fatal, and if inadequately treated may relapse and again, and irreparably damage the child's heart. Most of the heart disease, which exists in patients under thirty, is the result of a rheumatic infection in childhood, which was either unrecognized or ineffectively treated. Thorough physical examination should be made and when the condition has been accurately diagnosed thorough treatment will be necessary if the process is to be arrested and lamentable cardiac injury to be avoided. The fate of the patient depends upon the action or inaction of the physician.

Every child who complains of sore throat or pains in his joints, muscles or tendinous structures,—every child who suffers from malaise, and unexplained pyrexia, whose skin shows spots of erythema or has subcutaneous nodules on his tendons, or about his joints, or who has pains in the chest, or shortness of breath, or marked pallor, or exhibits slight choreic movements, should be put to bed and his heart should be most carefully examined. The earliest evidence of cardiac rheumatism is obtained, not by oscultation, but by percussion, for the earliest cardiac rheumatic phenomenon is an acute dilatation of the left ventricle. In a first attack of rheumatism the dulness of the left ventricle is always increased towards the left; almost always to the nipple line. Along with this evidence of dilatation there will be a weakened cardiac impulse, a weaker pulse wave in the arteries and a shortened and enfeebled first sound at the apex, and a distict accentuation of the pulmonary second sound.

There may be a murmur at the apex. The pulse rate is abnormally frequent, and is further increased upon slight exertion. The acute dilation of the left ventricle is present even in the mildest attacks of subacute rheumatism. Thus the importance of complete rest, even in the mildest cases. He advocates large doses of the salicylate of soda and to eeach dose should be added twice as much of sodium bi-carbonate.

Every case of chorea in childhood ought to be considered as presumably rheumatic and treated vigorously as for rheumatism.

Opium in the Therapeutics of Infancy.—In 'L'Echo Med. du Nord,' Delearde states that it is the custom to employ very small doses of the drug to infants. The first to break with the old traditions is Borde, of Bordeaux, who has always shown the tolerance of infants to opium, especially in acute gastro-enteritis of infectious origin. The writer finds the urine increases and the number of stools diminish, without causing any symptoms of retention of toxic material. The abdominal tympanitis lessens. It should be noted that Pal showed that morphia did not paralyze the intestine, but regulated its contractions. Vomiting is also stopped. The morphia is given in the form of the syrup of morphine (of the French Pharmacopœia) and is made up to 100 c.c. in different strengths for different ages. For example, at the age of one month 2-3 grm. of the syrup, 3 months 5 grm., 6 months 9 grm., 1 year 13 grm., 18 months 16 grm., 2 years 18 grm. Of this solution a dessert-spoonful is given every hour, day and night, till the child falls asleep. On awakening the treatment may be continued The child becomes much better after twenty-four hours, the temperature has fallen, and the diarrhœa and vomiting, if not ceased, have much improved. During this time milk is stopped, and decoction of cereals given instead. By this method the infant of 3 months is given ¼ centigramme of extract of opium. Delearde employs the following modification of this method: he gives every three hours a mixture of paregoric elixir of opium with gum acacia and orange flower water, the elixir being given in the doses of 5 grm. per year of age. For example, to an infant of 3 months 1.25 grm., and double that quantity to an infant of 6 months, and so on. This elixir in 10 grm. contains 5 centigrammes of opium extract. The author considers the advantage of the opium treatment is the more rapid return to ordinary alimentation. The contra-indications for opium are—pulmonary affections, great wasting, and chronic enteritis. Sometimes he adds lime-water to the medicine, and occasionally lactic acid. Opium is also of great value in the spasm accompanying laryngeal affections in the infant, and also in whooping-cough, when it lessens much the violence of the cough and the accidents resulting from this.

Scorbutic Etiology.—In the Russische Zeitschrift fur Haut fur Geschlechtskrankheiten Halpern, as chief of a hospital in Russo-Japanese war, had the opportunity of observing a number of cases of scurvy in which the angio-neurotic symptoms, such as erythematous maculæ, nodes, etc., were invariably accompanied by more or less recent traces of activity on the part of pediculi vestimenti or body lice. His attention having been called to this phenomenon, he began to investigate more closely the relation betwixt the scorbutic signs present and the lesions due to the parasite mentioned. It happened that in a considerable number of cases, not a few patients were found in which neither anamnesis nor objective investigation discovered any marked staphylogenic affection of the skin, so that it was entirely unwarranted in such instances to attribute the development of scorbutus to the debilitating action of such causes or to the influence of a morbid or predisposed constitutional idiosyncrasy, nor could the nutritional condition present or any other environmental factor elucidate the development of the scurvy. Thus there was nothing else of etiologic valve than the relationship between the scurvy and the pediculi, rendered still more probable by the known fact that the toxic action emanating from the parasites is able, by reason of its effect upon the innervation of blood vessels, to evolve dermal pigmentation and erythematous and other angio-neurotic phenomena.

Cardiac Pain.—In the Munchener Med. Wochenschrift Selig describes this subject. The commonest cardiac sensation is palpitation, due in the healthy to increased energy of contraction. In the large group of "nervous hearts," psychic conditions become chiefly etiologic, and in nervous patients these sensations may develop without psychic alterations and frequently at a definite hour. Another phenomenon is that of cardiac anxiety or anguish. All cardiac patients have a fear that something may happen to them, but the anxiety is often dependent upon actual lesions, such as sclerosis of the coronary arteries and myocarditis, and reaches the maximum in angina pectoris. The cause of stenocardiac states is not always a coronary sclerosis; general nervousness, tobacco, partial or general spasm of the cutaneous arteries are often factors. Another group of sensations are educed by disturbances of rhythm and retardation of the cardiac impulses. In many cases the sensation is attributed to the heart, though the cause is to be sought elsewhere. In nervous patients a point located below the breast is often extremely painful, especially so from energetic palpation. Many cases complain of a cutting, burning or gnawing pain. There may be a hyperesthesia of the nipples. The supposed cardiac pain in women is frequently in relation with heavy pendant or fatty mammæ. This great weight causing dyspnea and various pains in the heart region, much relieved by the use of a "breast ele-

vator," sold in the shops and fitted to any corset now in use. Cardiac pain is often confused with pain in the adjacent bones, particularly where these have gouty deposits on the anterior parts of ribs, in which case, the tincture of iodine renders good service. Likewise an intercostal neuralgia may cause "cardiac" pains. Vaso-motor disturbances, especially in arterio-sclerotic patients, may develop anginoid states (in connection with cold, damp weather). Vascular crises play an important role in the most diverse cardiac sensations, and obstipation, flatulence, irritation of the walls of the stomach, disproportion in the size of heart and thorax may develop cardiac pains.

The Surgery of Lingual Thyroids.—Low, in The Edinburgh Medical Journal, discusses the anatomy of thyroid deposits in this situation and says that as excision of these lingual deposits has been followed by myxedema the surgeon should always consider carefully the question whether or not in these cases the normal thyroid in the neck is sufficiently developed to carry on itself the thyroid function in the body. In case of absence or small size of the cervical thyroid, one would hesitate to operate except when the size of the lingual deposit should prove dangerous to life. Enough of the lingual deposit should be left to carry on the thyroid function (in case of cervical absence) even at the risk of subsequent recurrence. He advises the splitting of the tongue from tip to base, thus permitting thorough eradication. The writer prefers this method to that of subhyoid pharyngotomy, for while the latter is admirably adapted for the removal of growths at the entrance to the larynx, it has for the removal of growths at the base of the tongue the great disadvantage of opening a communication between the septic cavity and the large cervical wound. Moreover, if the transverse incision is carried any distance beyond the hyoid bone, the superior nerve may be cut, and the larynx is rendered insensitive, permitting food and discharge to enter the cavity and expose the patient to the danger of foreign body pneumonia. The procedure to be followed after exposure of the growth depends on its size. Incision with curetting and cauterization may suffice in some instances, but the author contends that it is a very much better plan to extend the operation to an excision of the capsule which, he says, consists of the dilated remains of the thyrolingual duct.

Cerebrospinal Fever.—Larkins, in The London Practitioner, mentions the sera used in the cerebrospinal fever. The use of antidiphtheritic serum was suggested by Wolf, of Hartford, Connecticut, to whom it occurred that there might be some antogonism between the two organisms, because he noticed that there was a decrease of diphtheria coincident with the increase of cerebrospinal fever. He then found that pure cultures of meningococci were killed by antidiphtheritic serum. He, therefore, treated four cases of cerebrospinal fever by antidiphtheritic serum and all recovered. The success hoped for by this method has, however, not been realized. Antipneumococcal serum seems more likely to be of use than antidiphtheritic, owing to the close resemblance of pneumonia to cerebrospinal fever, and of the pneumococcus and meningococcus to one another. He has used it once, owing to the presence of some Gram positive diplococci in the cerebrospinal fluid. No good result followed its use. Jevers and Elder, however, noted improvement after its injection, saying that the patient became quieter and went to sleep; the temperature rapidly fell, followed by a rise some time later, but the patient seemed better and the pulse stronger. The production of a really satisfactory anti-meningococcal serum should not be long delayed, and to this we must look as being the most rational, and the best method of combating this disease. Jochman produced a serum for which he claims distinct therapeutic properties; with it he was able to confer immunity to mice against six times the ordinary lethal dose of the cocci. For humans, doses of 20 c.c. are required either intraspinally or subcutaneously. Of seventeen patients treated by it only 5 or 29.4 per cent. died. Ruppel's serum he tried on three patients without success. Recently Flexner's serum appears to be giving very satisfactory results, and, where used, to have brought down the mortality considerably.

Pyopericardium in Children.—Poynton in The British Medical Journal says in an analysis of 100 fatal cases of this affection taken from the Great Ormond Street Hospital and other records, notes that 83 per cent. occurred before the fourth year of life was completed and two-thirds between the ages of one and three years, making it, in fact, almost a disease of infancy. Primary pyopericardium is excessively rare. About 60 per cent. were associated with empyema, and about 40 per cent. were associated with acute pulmonary tuberculosis. About 20 per cent. of the cases ran an acute course lasting about four weeks. Fifty per cent. were subacute, lasting four weeks to six months; 17 per cent. were chronic, with insidious onset lasting from six months to over a year. In acute cases the symptoms were abrupt and pneumonic in type. In the subacute and chronic cases, cough,

pleural pain, and wasting were prominent. In the most chronic cases only gradual failure of strength and health was recorded. The majority of the symptoms are in no sense localizing. Those which attract especial attention as unusual and not quite like those which are expected in severe pulmonary disease are extreme illness with lividity, panting respiration and excessive dyspnea, curious irregular rises of temperature accompanied by rapid and feeble action of the heart, orthopnea, and syncopal attacks. The last two are regarded by the author as the most suggestive, if in addition the pulse is stikingly rapid and excited.

When the diagnosis has been arrived at with confidence one of two events has probably occurred—either pericardial friction has been detected or there has supervened a large pericardial effusion. In children both events are exceptional.

When a case of pneumonia or empyema first comes under observation, if the exact condition of the heart is recorded it is possible in some instances to trace out every stage of the development of the effusion. Among the most important signs are progressive muffling of the heart sounds, synchronous with enlargement of the cardiac area, together with marked percussion dulness over the pericardium and sometimes posteriorly in the interscapular region. Tubular breathing or absent breath sounds may also be noted in the interscapular region.

A rapid and extensive increase of the cardiac dulness upward toward the left clavicle.

The pear-shaped outline of a distended pericardium.

The abrupt transition from the dulness of fluid to resonant lung tissue.

A wavy and diffuse pulsation to the left of the sternum.

When there is much fluid round the heart the pulse becomes rapid, small, and sometimes very irregular and almost running in character.

As to the clinical distinction between rheumatic and pneumococcal pericarditis, the latter is at its maximum frequency under four years of age, is almost never complicated by endocarditis, or dilatation, is as a rule complicated by empyema, pneumonia, and pleurisy, exhibits a marked tendency toward pus formation, is only exceptionally complicated by joint involvements. In all these respects the rheumatic pericarditis differs.

The prognosis of suppurative pericarditis in small children is exceedingly grave. Surgical intervention offers the best chance of success and there are some recorded cases of recovery. He believes that in infants even if the pericardium be opened the relief afforded will be comparatively slight on account of the difficulty in draining the tenacious exudation and the presence of multiple associated lesions. Paracentesis of the pericardium is, of course, required in these cases, and if there is sufficient evidence of an effusion it is well to proceed at once to open the pericardium. As to the exact site for exploration, West has recently advocated the left lower margin of the cardiac dulness—that is, in the region of the impulse.

In uncomplicated cases this is doubtless the wise procedure. In accordance with the conditions present, however, it may be wise to introduce the needle into the fourth or fifth intercostal space close to the sternum or in the left costoxiphoid angle, pressing it inward and upward behind the lower end of the sternum. Inflammatory changes in the anterior mediastinum and great thickening of the pericardium itself make it sometimes difficult to tell when the pericardial cavity has been opened.

The Operation of Cardiolysis.—Poynton and Trotter, in The Dublin Medical Journal, report such an operation in a boy, sixteen years of age, which was successful. They remark that the operation of cardiolysis was first suggested in 1902 by Brauer and put in practice by Peterson. The name cardiolysis is perhaps a little misleading, as it is at any rate more impressive than the surgically simple procedure to which it is given. It was pointed out by Brauer that in certain cases of adherent pericardium where the heart is embarrassed by fixation to the surrounding parts, a considerable amount of this overloading of the heart's action could be got rid of by rendering the præcordial part of the chest wall more flexible than normal by removing its bony and cartilaginous framework. No extensive separation of adhesions was suggested, and it is obvious that under the circumstances in which the operation has to be done such procedure would be very dangerous. In the first place the circulatory conditions are very unfavorable for prolonged general anæsthesia, while the risk of tearing the left pleura or even the heart wall would seem to be very great. The operation was extremely simple and short and the results were encouraging. Nevertheless, it seems to have been very little done. A review of the subject published in August, 1908, by Ernst Venus, gives a total of seventeen cases, three of them being Brauer's. The article contains a summary of all the cases and seems to be founded on a very complete study of the literature. There is no

death recorded as the consequence of the operation, and the results appear on the whole to be very good. In all the published cases general anæsthesia seems to have been used, on the whole without much trouble. The operation need not last more than a few minutes and no very profound degree of anæsthesia is necessary, so that if the patient has been kept at rest for some time previously there seems no great objection to the use of chloroform. If it were necessary, however, to do the operation at a time when the heart was in an unsatisfactory condition there can be little doubt that a local anæsthetic should be preferred. As is well known, the chest wall can be very satisfactorily infiltrated with eucaine and adrenalin, and one has been able, for example, to open the pericardium very freely under it in a child with purulent pericarditis without causing pain. The technical details of the operation are very simple. A horseshoe shaped flap should be marked out, having its base above at the third rib and its apex at the seventh. The inner edge should be over the sternum and the outer in the region of the nipple line. The flap is turned up with the pectoralis and all the structures external to the ribs. The fourth and fifth ribs are those most commonly excised, but the extent of the rib resection will, of course, depend on what is found. A length of at least three or four inches of combined rib and cartilage must be removed. The third, the sixth, and even the seventh rib must also be dealt with if it appears necessary, and even the left edge of the sternum has been excised when the heart was obviously fixed to it. There has been but one subject of disagreement in the matter of technique, and that is the question of the removal of the costal periosteum. But it was shown by Koenig that the anterior periosteum only should be removed. The possibility of leaving the periosteum without damaging the usefulness of the treatment makes the operation still more simple and removes the only serious risk it could be supposed to have.

The Causes of Obstruction Producing Cyanosis During the Nasal Administration of Nitrous Oxide.—Trewby, according to The London Medical Lancet, has observed some thousands of nitrous oxide administrations and states that cyanosis in ordinary cases is merely mechanical, being mainly due to the size and shape of the palate and tongue. Whether nitrous oxide is given by the nasal or ordinary methods, the fact remains that the oropharyngeal aperture is always obliterated before the nasopharyngeal aperture is in any way affected, and the breathing gradually tends to become nasal. This can be easily demonstrated; if nitrous oxide is given by the face piece method, when one is near the end of the administration the face piece is still kept on, and at the same time the nose is compressed, unless the palate is of the short variety, it gives rise to obstruction to expiration. Besides the condition of the fauces causing obstruction and giving rise to cyanosis, cyanosis in itself gives rise to obstruction of free breathing in the later stages, the swelling and falling back of the tongue giving rise to false stertor: he has noticed that this trouble occurs to a marked degree in patients with receding chins. Cyanosis causes distension of the large veins of the neck; and, as is well known, a collar or piece of tape, which was quite loose at the beginning is, if the administration is pushed until the patient jactitates, found to be pressing tightly round the neck, the measurement of the neck having increased ¼ in. in circumference. This is clearly due to distention of the superficial veins of the neck, as it is not likely that a structure like the cervical fascia can stretch much. In cases of œdema or suppuration beneath the deep cervical fascia, one is struck by the severe dyspnœa that occurs from pressure beneath this structure without any apparent general swelling of the neck. If the superficial veins external to the cervical fascia are compared with the deep veins of the neck, one realizes what the pressure in these huge veins must be, on the soft tissue, beneath a fixed structure like the cervical fascia. The parts likely to be affected are the laryngeal opening, which may get pressed back against the wall of the pharynx, and the space just above the larynx, where the tissue is extremely vascular, and it is quite easy to imagine how, with the increased tension within the cervical fascia occurring in asphyxia, the air way here may be completely obliterated.

Prostatic Enlargement.—Herring, in The Dublin Medical Journal, states that prostatectomy should not be undertaken unless the symptoms present are definitely ascertained to arise from that organ, and from nothing else. Urinary symptoms are very frequently attributed to the gland when in fact they come from quite a different cause. For instance—and this, perhaps, is the most common mistake—a patient complains of occasional retention, hæmorrhage, pain, etc.; a rectal examination is made: the prostate is found to be enlarged and is straightway accused, without further search, of being the cause of the trouble. What is the result? During the operation for removing the offending member a stone is found in the bladder, which could easily have

been removed by lithotrity and the patient restored to health in a week, whereas he is now condemned to pass through an unnecessarily severe ordeal. In skilful hands the x-rays will nearly always eliminate such errors, even when the sound has failed to reveal the true cause. Prostatectomy should be deferred until after treatment by catheter has been tried. The patient may recover his power, or he may decide, when he knows exactly what to expect, to continue treatment. No harm can come of a delay of a month or more, and in septic cases much good will result, for the patient will improve and be in a better condition to bear the operation. Afterward, if the catheter fails or is found too irksome, recourse can be had to operation. When the patient is comparatively young, in good health, and has many years of life before him, operation is very rightly advocated as soon as it is proved that catheter treatment will not cure. The same may be said of those who, owing to their position in life, calling, or lack of funds, are unable to carry out the few simple details necessary in sterile catheterization. Prostatectomy undoubtedly is the best treatment when the prostate, by its mere size, has largely encroached upon the bladder space, and there is no residuum. The urine is clear and free from all signs of sepsis, yet the patient has constant and urgent calls to pass water both by day night. Finally, the operation may be necessary in certain cases where the prostate is constantly bleeding and filling the bladder with clot which interferes with instrumentation and endangers the patient's life.

Phthisis.—Broadbent (London Practitioner) in speaking of the treatment says that in giving tuberculin, the best results will be obtained, if the opsonic index is taken a few times first, and the new tuberculin T. R. injected when the index begins to fall. After the injection, there will be a negative phase of a falling opsonic index for about twenty-four hours, followed by a rise to above the former line. A new injection is indicated when the index again begins to fall, which is usually in seven to ten days. Headache, rise of temperature, or a prolonged negative phase would show that too large a dose had been given, and a feeble opsonic response that the dose was too small. It is safest to begin with 0.00002 of a milligramme, slowly increased to 0.0001 or 0.0002. It is possible to give tuberculin without using the opsonic index, if the temperature and clinical symptoms of the patient are very carefully watched, and the quantity injected is very slowly increased at intervals of ten days. Dr. Latham advocates the giving of tuberculin by the mouth in normal saline solution or in fresh horse serum. He says that it should be given when the stomach is empty and in the morning. He shows by the effects on the opsonic index that it really acts when so used, but the dose required is about double the hypodermic one. He asserts that benefit is derived from tuberculin even in very acute stages of phthisis, but this is not altogether confirmed by Dr. Mackenzie. The point of interest is the fact that fresh horse serum given alone always raised the opsonic index to tubercle without any preceding negative phase, and should, therefore, be a most useful addition to the treatment of acute phthisis. When tuberculin is given in any form, the patient should be kept in bed for at least twenty-four hours, and the temperature taken every four hours, preferably in the rectum, in order to guard against ill effects during the negative phase. He considers that Marmorek's serum is horse serum containing an unknown amount of tuberculin. This serum was tried some time ago but did not give such results as to make its use permanent. Dr. Maguire's method of injecting intravenously every day 50 c.c. of 1 in 2.000 formic aldelyde in normal saline solution is difficult, but does good in some cases. Cinnamate or hetol injections increase the number of leucocytes in the blood, and thus probably aid the phagocytic power.

Radioactivity and Carcinoma.—Barlow, in The British Medical Journal, presents his views on radioactivity and carcinoma. The writer shows that certain of the tissues of the human body show skotographic action (liver, kidney), while certain do not (spleen, lung); that a larger amount of this property resides in female tissues that possess it than in male of the same kind; that the amount present in the liver increases from infancy to the age of fifty-five years, with an unexplained drop in both sexes during the age period thirty-five to forty-five, and that after fifty-five while it increases still further in the case of males, in females it undergoes a sharp diminution. The author demonstrates that carcinomatous material possesses skotographic power, whether it is primary or secondary, and that female carcinomatous tissue has a higher skotographic value than male; and that the existence of a mass of carcinoma in a tissue modifies its normal skotographic value. Barlow has found that certain substances commonly supposed to be causally related to carcinoma possess the skotographic power to a high degree (cholesterin, gallstone), while others are devoid of it (clay pipe, paraffin). The

writer throws some light upon the nature of the skotographic action manifested by animal tissues and certain other substances, comparing their behavior with that of woods in which the action has been regarded as dependent upon the formation of hydrogen peroxide, and with that of recognized radioactive substances. On this point he adduces evidence showing that the animal tissues and other substances under examination cannot, so far as their action upon a photographic plate in the dark is concerned, be grouped conclusively with the recognized radioactive substances or segregated into a class such as that formed by the woods, and believed by Russell to affect a photographic plate in the dark by means of a purely chemical action. They occupy an intermediate position and have affinities with the woods on the one hand, and with the recognized radioactive substances on the other. Lastly, MacCormac has shown that bacteria may be divided into groups according to their skotographic power, and that the only group which acts in this way with constancy and to a marked degree is a small one, which includes the pyogenetic staphylococci and the bacilli of tuberculosis and diphtheria. The bearing of these observations upon the question of carcinoma he intends to treat in his third lecture.

A Case of Severe Facial Carbuncle, with Ludwig's Angina and Parotitis.—Walters and Solly, in The London Practitioner, report such a case successfully treated by vaccine, combined with the administration of repeated doses of citric acid. The patient was a girl of seventeen. A pimple was first noticed on the right cheek, which was squeezed but no pus exuded. Two days later she had a hard indurated inflammatory mass about the size of a shilling on the right cheek adjoining the lip. The temperature was 99° F. Soon the upper lip on the right side began to swell and pus discharged by many small holes from its under surface and the lower lip began to swell. Soon the whole of the right cheek was dusky in color, with an indurated swelling extending upward from the lip, the eye being nearly closed and the groove on the side of the nose nearly obliterated. She was almost unable to open her mouth, there were sordes on the teeth, and her tongue was very foul. There was no fluctuation present. The temperature was 103° F., the pulse 140; the patient was somewhat drowsy, semi-delerious, and evidently very ill. A dose of 50,000,000 staphylococci (mixed stock vaccine) was inoculated. The next day there was not much change. On the day following a culture taken from the pustule of the lip gave a pure growth of staphylococcus aureus from which a vaccine was prepared and a dose of 25,000,000 staphylococci were administered. In three days improvement was noticed. Later another injection of the patient's own staphylococci were given. The blood withdrawn clotted almost immediately and, therefore, one-dram doses of citric acid were administered every four hours for four doses. The patient made an uneventful recovery, the only sign of illness left being a dimple on the left cheek caused by the skin becoming attached to the mucous membrane of the cheek just over the opening of Stenson's duct.

A Case of Acute Lupus Erythematosus.—McDonagh, in the Glasgow Medical Journal, reports such a case occurring in a female, aged fifteen, who was admitted to the hospital March 12, 1907. She first noticed her hands gradually becoming blue and numb. A few weeks later the feet likewise became affected. For some years previously she had suffered from chilblains. On admission to the hospital the fingers and toes were bluish, showed old scars, and were cold to the touch. There were some blotchy red patches on the face. The nose and ears were normal. A few days after admission a red rash appeared all over the face and on both wrists extending up to the forearms, being accompanied by a persistently raised temperature. No hemoglobinuria was found. On March 26, the face became much worse, the nose appeared cyanosed, and albumin appeared in the urine. On April 3, the nose became very sore and swollen, also the upper lip, and the patient breathed almost entirely through the mouth. On April 12 the face, the hands, and the feet were better, but patches of erythema appeared on the arms and a papular eruption on the back. On April 23 the face was diffusely pigmented and erythematous; it was covered all over with scales, some of which came off easily, others being adherent; the latter on removal had those processes of horny tissue which fitted into small depressions on the skin, and which are typical of lupus erythematosus. On having the hair cut short typical plugs and scarring were found. The scalp, like the face, was diffusely pigmented and erythematous. A small papulo-squamous eruption covered the neck and chest. An atrophic condition of the skin had spread up the back of the hands to about the middle, where the scarring was less marked, and when present was covered with scales and surrounded by a zone of erythema. As elsewhere, many of the scales on removal possessed the horny processes. Later she was brought to the hospital with all the signs of

a general peritonitis, and was operated upon. Later she developed a purulent pericarditis, necessitating a second operation, which was followed by death. The point of great interest in this case is the age of the patient. No history of tuberculosis in this case was obtainable.

Kyphosis with Spinal Crest.—Marie Nageotte-Wilbouchewitch (Arch. de Med. des Enf.) describes a form of kyphosis which is very rebellious to treatment. It occupies the preferred location of kyphosis in the adult, the maximum curve being at the sixth or seventh dorsal vertebra, and is characterized by prominence of the spinous processes of three or four vertebræ, forming an elongated crest at about the angle of the scapula. The vertebræ forming the crest are generally the sixth, seventh, and eighth. More rarely the crest is lower down. The mobility of the spine at this location is always less than normal. When the child lies on his stomach the crest does not entirely disappear, and on raising the legs do not form a concavity, as would be the case in the normal child. When pressure is made on the summit of the crest the neighboring regions become incurved, that is the cervical and dorsal regions become more curved. There is no true ankylosis, for suspension restores the contour gradually. The crest is the key of an arch, and the point of departure of a more extended kyphosis of the cervico-dorsal region. This kyphosis increases with age and appears very early in the life of the child, at from three to five years of age. It is believed by the author to result from a congenital malformation of the vertebræ, since the same condition is seen in parents and children. The treatment consists of suspension, respiratory gymnastics to develop the thorax and counterbalance the kyphosis, correct attitude when working, and repose on the back.

The Principal Ways of Tuberculization in the Young Infant.—Terrien (Ann. de Med. et Chir. Inf.) discusses various methods of entrance of tubercle bacilli into the organism of the young infant. The writer discards as almost negligible the theories of hereditary transmission of the germs and of the predisposition to tuberculosis. Tracheo-bronchial adenopathies are almost constant in tuberculosis in the child, and are a common location of early tuberculosis, whether it be brought from the respiratory organs or not. Still it cannot be regarded as a positive sign of pulmonary entrance of the bacilli. The ways of entrance of tuberculosis are multiple, including the bronchial, naso-pharyngeal, and intestinal mucous membranes. The intestinal method of entrance is much more rare than has been supposed, especially since milk has been sterilized habitually, and so much care taken to get it free from tubercle bacilli. It is much more important to consider the pulmonary or naso-pharyngeal entrance of germs. The principal factor is always human contagion, often in the family. To preserve the infant he must be kept from all contagion, separated from his tuberculous parents or relatives, placed in a sanatorium, if necessary, or in the country. Tuberculosis may be arrested at all stages. Latent tuberculosis progresses favorably for the infant as soon as he is removed from his surroundings to the free air and good hygiene of the country.

Use and Abuse of Proprietary Foods in Infant-feeding.—Cantley, in The London Practitioner, says that proprietary foods are not really necessary in ordinary circumstances. They are, however, often of very great value, more especially the malted foods, provided that they are used with discrimination as additions to the diet, and not as substitutes for cream or milk. Generally speaking, in the first three months of life, the only permissible proprietary foods are those made from condensed milk, with or without the addition of cane-sugar, or of a completely malted flour. These foods are also useful, under certain temporary conditions, in the second three months of life. At this age, too, we can make use of the completely malted carbohydrate foods as an addition to the milk mixtdre instead of sugar; of the more or less malted foods, in a similar manner, provided that they are given in small quantities and do not produce flatulent distention of the intestines; and even of the foods consisting of unchanged starch, especially those which undergo partial conversion in the process of preparotion, and, at the same time, partially peptonize the milk proteins. In the third three months of life, mothers constantly clamor for the addition of some food to the milk mixture. Simple barley water, gradually thickened, is sufficient, and will educate the child in the digestion of starch. Almost all of the meat preparations consist of extractives of no nutritive value, perhaps stimulating to the digestive functions, possibly throwing an extra strain on the liver and kidneys. The high proportion of salts and extractives is liable to cause thirst and diarrhea. Diarrhea is especially apt to be induced by peptone preparations. Some of the meat jellies, though not nutritious, have a pleasant flavor and are comforting to a feverish infant who refuses food. They are still more comforting to the anxious mother who fears that her child will tarve and has

profound faith in these preparations. In small quantities, they do no harm. Similarly, a hot, clean fluid, such as beef-tea, is pleasant to the febrile tongue and disordered digestion. As ordinary articles of an infant's dietary, these foods must be condensed.

The Surgical Treatment of Colitis.—Heaton, according to the Edinburgh Medical Journal, says that of the causes of acute ulcerative colitis we know but little. Some authorities, notably Rolleston, include all such cases under the term dysentery, and maintain that bacteriological examination shows them to be identical. But Osler, Allchin, and others hold that they are separate and distinct disease. Bright's disease would certainly seem to be a predisposing factor and the disease seems equally common in men and women. There is profound diarrhœa, and blood is almost always present in the motions, mixed with a most offensive mucus and pus. There are usually marked abdominal tenderness, rapid and progressive emaciation and weakness, the patient in some cases lapsing into a typhoid condition. The temperature is irregular, and there may be profuse perspirations. Distinct diagnosis has to be made from abdominal tuberculosis, typhoid fever, and malignant ulceration of the lower bowel with spurious diarrhœa, and is in some cases a matter of extreme difficulty. A sigmoidoscopic examination should be made whenever practicable in these cases, and will often materially help in arriving at a right conclusion. The prognosis seems from the reported cases to be a very bad one; intestinal perforation is frequently a cause of death. Murrell reported five cases treated on purely medical lines with one recovery and four deaths. Active surgical treatment is urgently called for in such cases. The large bowel must be kept empty and at rest, and yet to starve such patients is to kill them, while rectal feeding is out of the question. An artificial opening is made in the cæcum, or the appendix is fixed to the abdominal wall and opened. The operation can be done in a very few minutes and with but little or no shock. Intestinal contents are in this way diverted from the ulcerated colon, which is at the same time put at rest and under the best conditions for repair. Through the opening thus made the inflamed and ulcerated bowel can be daily irrigated. H. C. Curl has reported eleven such cases, with eight recoveries and three deaths. One of the deaths occurred in a patient who was already moribund when operated upon. Later, when the patient is convalescent and the ulcerative processes have come to an end, the cæcostomy or appendicostomy opening is easily closed. In chronic ulcerative colitis the urgency of the symptoms is not so great and milder medical measures may be given a prolonged trial. But when the diarrhœa still continues with the passage of blood and mucus, and despite treatment the patient is progressively losing weight and passing, as they frequently do, into a neurasthenic condition, an appendicostomy with prolonged daily irrigation of the colon will in many cases effect a cure. Many such successful cases have been reported.

Red Degeneration of Uterine Fibroids Complicating Pregnancy.—Bland-Sutton in the Edinburgh Medical Journal discusses the influence which pregnancy exerts on fibroids. When the walls of the uterus are occupied with fibroids and pregnancy ensues, the fibroids are often influenced by the altered conditions. They often become red or flesh-colored and this has been supposed to be due to an increase in muscular fiber. Another important change is the onset of pain and tenderness. In early stages the reddish change comes in streaks, but as pregnancy advances the whole fibroid mass becomes so affected and the whole fibroid may even soften and become diffluent. In these degeneratiug fibroids no organisms are usually found, but the tissue is necrotic and refuses to stain. The characteristic redness is found to be due to the diffusion of blood pigment through the necrosed tissues, so that the hardest fibroid may become of the consistency of soft soap. From a large subserous fibroid staphylococcus pyogenes aureus has been isolated, but no organisms have been found in the interstitial variety. It is now believed that when a uterus becomes pregnant the fibroids do not enlarge in consouance with the physiological increase of the normal muscular tissue of the uterus. Some fibroids do enlarge beyond doubt, but this results from interference in circulation in these tumors, producing edema and color change due to hemolysis of blood, not to rapid increase in muscular tissue, as has generally been supposed. The sudden pain and tenderness produced by the red change may suggest rupture of a pregnant tube. If the patient is kept in bed the pain and tenderness due to the red change will generally subside. Occasionally surgical intervention is necessary. During the last nine years twenty cases have come under the author's personal care. Of these the symptoms came on in the first month once, in the second four times, in the third four times, in the fourth six times, in the fifth, sixth, and seventh once each, and in the puerperium twice.

Of the patients three were spinsters, three multiparas, and fifteen primiparas. Ages varied from 28 to 45. Of the operations done, three were enucleations and seventeen hysterectomies, two of the latter being total, as the fibroids were in the cervix. The writer has seen the red change occur in all thirty-two times. The author says that he has no opinion as to its cause. The presence of micro-organisms in the degenerated tissue is in all probability exceptional. The thrombus and infarction theories which have been advanced require more proof than has thus far been brought forward. The condition is prone to occur during pregnancy. Fibroids so changed are a serious menace to the pregnant state.

Iodipin in Syphilis.—Freshwater, in The British Medical Journal, mentions the advantages and disadvantages of iodipin. It is often necessary to give a long course of iodine to patients who are unwilling to take iodide either from its lowering effects or that they are the subjects of iodism. All the iodipin injected is used up and must exert its specific action; an exact dosage is therefore possible. Injections are painless, and there is no fear of sepsis if proper precautions have been taken. Subcutaneously it does not produce iodism. Patients who have an idiosyncrasy to potassium iodide can take it quite well. Patients remain much longer under the influence of iodine than when iodine is given in other forms. After a short course of injections the system can be kept for a period of four to six months under the influence of iodine. The body is under a slow, continuous regular action of iodine, which is of prophylactic value. In nearly all cases, after a prolonged course of potassium iodide, there are stomach and bowel troubles. This does not occur with iodipin. It has a specific action in tertiary syphilis and arterial degeneration. The disadvantages to the use of iodipin may be briefly summarized as follows: In cases of syphilis, when a rapid therapeutic effect of iodine is required, iodipin is of little use, as the absorption of iodipin is extremely slow, two to ten days elapsing before the iodine can be definitely demonstrated in the urine, so that in cases in which there is a threatened perforation of the palate, cerebral gumma, etc., potassium iodide should be given. Iodipin is not a substitute for potassium iodide when active lesions are in progress. A further disadvantage is that only a small amount of iodipin can be absorbed per diem, about one-third what would be given in the ordinary way by the mouth. This can, however, be turned to account in various ways. For example, in tertiary syphilis, after potassium iodide has been administered somewhat vigorously, a course of iodipin injections may be given, and the patient may then be left without medicine for some months, during which time the physician knows that iodine is daily passing through his tissues.

Typhoid Bacilli in the Blood of Patients Not Sick with Typhoid.—Busse (Muench. Med. Wchschr.) says that the difficulty experienced in the early diagnosis of typhoid fever led many clinicians to endeavor to discover new methods and new symptoms which should be pathognomonic in the early stages of typhoid fever, and distinguish it from similar infectious diseases, especially from miliary tuberculosis. No reaction and no symptom has as yet been discovered which would absolutely be proof for or against the diagnosis of typhoid. The recent demonstration of typhoid germs in the blood of typhoid fever patieuts in the early days of the disease caused many investigators to believe that this method had but one meaning—the diagnosis of typhoid fever. This would be the case if the Eberth bacilli could only be found in the blood of typhoid fever patients. The author reports the clinical history of four patients. Two of these had miliary tuberculosis, another phthisis, with intestinal affection, and one case of typical lobar pneumonia with diarrhœa. In all four cases typhoid bacilli were demonstrated in the blood in the Hygienic Institute of Posen. In the first two cases typhoid was suspected, but the autopsy revealed no typhoid lesions. The third case, with pulmonary tuberculosis, was under medical treatment for months without typhoid symptoms. The autopsy revealed no typhoid changes. The typical course of pneumonia in the fourth case excluded typhoid entirely. The cases indicate that the finding of typhoid bacilli in the blood of patients does not necessarily mean that the patient is sick with typhoid, on the contrary, it demonstrates that typhoid bacilli present in the intestines of patients sick with some other serious malady and with intestinal affections, may pass from the intestines into the blood without causing typhoid fever. As these four cases occurred in the course of a year without having systematically made examinations for typhoid bacilli, it has the appearance as if it were not an infrequent occurrence. In making the diagnosis, this fact must be taken in consideration. Typhoid bacilli in the blood of suspected typhoid patients do not absolutely mean that typhoid fever is present.

Complications of Suppuration in Air Sinuses.—Turner (Edinburgh Med. Jour.) in speaking of the treatment, says that we

have to consider whether the onset of orbital complications should be made an indication for opening the affected frontal and ethmoidal sinuses by an external operation. Notwithstanding the fact that a number of cases have been recorded in which inflammatory œdema of the eyelids complicating an acute inflammation of these sinuses have been completely cured by endonasal treatment, he is of the opinion that the external operation is the wiser procedure. It is often impossible to say whether the orbital swelling is merely due to œdema, or whether pus has already formed within the cavity of the orbit. Early evacuation of an abscess in this situation is essential, not only for the preservation of the function of the eye, but in order to prevent the risk of secondary intracranial complications. In cases of chronic sinus suppuration, in which an abscess forms in the orbit, there is in all probability, caries and destruction of a part of the bony wall of the sinus contiguous with the orbit; consequently an external operation is the only possible procedure. The incision should be made immediately below the eyebrow, and great care should be taken to detach the periosteum from the inner and upper wall of the orbit without injuring it, and exposing the orbital fat. As a rule, the pus is found between the periosteum and the bone. The ethmoidal cells can then be freely opened by the removal of the lamina papyracea, and the frontal sinus can be explored by removal of the inner portion of the roof of the orbit which forms the floor of the sinus. The sinuses may then be dealt with according to the condition and size of the cavity. In the ethmoidal cells it will probably suffice to establish a large communication with the nasal cavity, while the orbital wound is lightly packed, the skin incision being left unsutured for a few days. The nasal drainage is assisted by the removal of the middle turbinated bone. In cases of chronic frontal sinus suppuration the cavity of the sinus should be obliterated by removal of its anterior and inferior walls, preferably by the method described by Killian. An operation which is confined to an orbital incision must be condemned as imperfect, as it only leads to the establishment of a fistulous opening.

Chronic Gastric and Duodenal Ulcer.—Drummond and Morison, in the Glasgow Medical Journal, say that the physical signs on which we place most reliance are; A tender spot. Over the ulcer, whether in stomach or duodenum, a deep, well localized, tender spot is generally discoverable which serves as an aid to diagnosis. Rigidity of the overlying muscles. The abdominal muscles covering an active gastric or duodenal ulcer will be found to be rigid, and this rigidity is quite localized. The hardness of the upper part of the right rectus overlying an active pyloric or duodenal ulcer is therefore an important sign. A tumor. A tender nodule or an indefinite induration, especially in the neighborhood of the pylorus, with a history of long standing stomach trouble, are characteristic of chronic ulcer, and furnish its most important sign. A considerable tumor may be caused by inflammatory exudation and induration round a chronic ulcer, but this is rare. A definite movable tumor suggests a cancerous rather than a chronic ulcer. The symptoms which distinguish a chronic gastric from a chronic duodenal ulcer related chiefly: 1. To pain. To the time at which pain occurs after taking food, that is, soon in gastric, later in duodenal ulcer. The influence of food upon the pain; solid food increasing gastric, but relieving duodenal pain. The effect of rest in bed on the pain; rest relieving gastric, but producing no good effect on duodenal pain. 2. To the character of the vomiting. Its close relationship to food and pain; its involuntary character in gastric, and its voluntary appearance in cases of duodenal ulcer. 3. To the form of hæmatemesis. Recurrent, and in relatively small quantities in gastric, overwhelming and followed by melæna in duodenal cases. The diagnosis of stricture in the neighborhood of the pylorus is so easy that no excuse can be offered for mistakes. With the history of a chronic gastric or duodenal ulcer some years back, and periods of remission of the symptoms, each remission being followed by a less perfect recovery until the evidences of stomach dilatation are complete—with such history the diagnosis of cicatricial stricture as a consequence of the ulcer is unmistakable. This is fortunate, as these cases demand operation and are the most satisfactory of all in results. With proper care it is possible in most cases to form a definite diagnosis of gastric from duodenal ulcer, but occasionally this is difficult. The author has performed 123 gastroenterostomies, of which number 118 patients recovered, and five died.

Methods of Cataract Extraction.—Parsons, in The London Medical Lancet, enumerates the chief advantages and disadvantages for simple and combined cataract extractions. The chief advantages of simple extraction are: Simplicity of the operation, including especially minimum of mutilation, of instruments required, and of instruments introduced into the interior of the eye; optical advantages of a round pupil

—minimal dazzling, best visual acuity, and best field; cosmetic advantage of a round pupil; ease of reposition of the iris; minimal danger of incarceration of capsule in the wound; infrequency of prolapse of vitreous; greater protection of deeper parts of the eye from infection; absence of pain and bleeding from cutting the iris. The chief disadvantages of simple extraction are: Risks of prolapse of the iris; less efficient treatment of the anterior capsule; greater difficulty in expression of the nucleus; greater difficulty in removal of soft lens matter; greater danger of ring synechia and secondary glaucoma if iritis should occur. The chief advantages of combined extraction are: Greater ease in expression of the nucleus; greater ease in removal of soft lens matter; increased facility in dealing with the anterior capsule, and therefore diminished necessity for subsequent discission; diminished risk of prolapse of the iris; diminished risk of secondary glaucoma. The chief disadvantages are: Greater complexity of the operation, including especially need of more instruments and of the introduction of more instruments into the eye, and greater duration of the operation; optical and cosmetic disadvantages; greater danger of incarceration of iris and capsule in the wound; greater danger of postoperative glaucoma; pain and bleeding from the iris.

Uterine Cancer.—The Edinburgh Medical Journal calls attention to the special committee of British Medical Association, in regard to appeal issued by the chairman, and says:

We cordially commend the whole to the consideration of all. It is the experience of all operating surgeons that few operations for cancer are so successful as that of early hysterectomy for carcinoma, and it is the lament of all that too often they only see the cases when it is too late to operate.

1. Cancer of the uterus is at first a local disease.

2. Cancer of the uterus is often a curable disease.

3. Operation is the only satisfactory method of treatment.

4. The earlier the disease is recognized the more hopeful are the prospects of treatment.

5. The risk of operation in early cases is slight, and the chance of permanent cure is good.

6. The recognition of early cancer is not usually difficult, and the disease should not be overlooked by the medical attendant.

7. A medical practitioner who fails to make a physical examination of a patient exhibiting any of the symptoms of uterine cancer incurs grave responsibility.

8. Treatment of symptoms without a physical examination is unjustifiable.

9. Early cancerous ulcers should not be treated with caustic; their appearance becomes masked, and valuable time is lost.

10. It is an error to wait and observe in order to arrive at a diagnosis.

11. In doubtful cases a diagnosis must and can be made in a few days.

12. To examine, to diagnosis, and then to treat, should be the rule in all cases.

Fatal Case of Pernicious Vomiting of Pregnancy.—Maxwell (Journal of Obstetrics and Gynecology for the British Empire) reports this case:

The case occurred in a primigravida, æt. 26. The chief features of interest in the case lay in the difficulty of diagnosis, since the patient, after admission to hospital, ceased vomiting, and there was only the history of severe vomiting at home, unassociated, however, with marked wasting. The toxic nature of the case did not reveal itself in any characteristic alteration of the urine; there was no albuminuria; the only ominous signs on admission were drowsiness and a very rapid, weak pulse; there was no jaundice. Patient passed successively through stages of restlessness, delirium, mania and final coma. Autopsy revealed hyaline degeneration and necrosis of the central cells of the hepatic lobules, the kidneys also showing a severe parenchymatous nephritis; sections of both tissues were shown under the microscope. The diagnosis of this distinctly atypical case was uncertain during life, and was based finally on the pathological investigation post-mortem.

X-Ray Treatment of Ringworm of the Scalp.—Macleod, in The London Medical Lancet, says that the x-ray treatment of ringworm by the single dosage method with the dosage regulated by the pastille is practically safe and harmless. It is a method of treatment of such delicacy that even in the hands of an experienced operator an accident such as an over exposure might happen, but such accidents should be of such extreme rarity as not to discredit a mode of treatment possessing such obvious advantages. Severe dermatitis followed by permanent baldness is the result of an over exposure or is due to some accident such as the exposing of an area, the resistance of which has been lowered by the previous application of strong irritants before the inflammation has entirely subsided, the use of wrong or inaccurately standardized pastilles, or from overlapping. Permanent baldness or delayed hair growth without marked dermatitis is the result of over ex-

posure, but it might in rare instances be due to some idiosyncrasy on the part of the patient in the same way as the occurrence of alopecia areata after ringworm. He has been unable to obtain any definite evidence of injury to the brain by this method of treatment from his own cases, from the literature on the subject, or from any one with experience of this treatment whom he has asked. Adamson remarks that depilation by means of the x-rays is now fully established as the most satisfactory method of treatment for ringworm of the scalp. Briefly, the treatment consists in temporarily depilating the affected area or areas, each by a single measured dose of x-rays, and thus, mechanically, and without actually killing the fungus, eradicating it from the areas exposed. By the introduction of the pastille of Sabouraud and Noire as a means of measurement of dosage, in trained hands, the dangers of the treatment have disappeared. One disadvantage it still has, namely, the length of time occupied by the actual exposures to the rays, and any means of shortening this period must be welcomed by all who have many such cases to treat, more especially in hospital or institution work. In a large majority of cases it is found necessary to irradiate the whole scalp. By Sabouraud and Noire's well known method with circular localizers from ten to twelve exposures are necessary in order to x-ray the whole scalp, and reckoning only fifteen minutes for each exposure and a certain time for adjusting the localizers for each area, the time occupied in x-raying the whole scalp is from three and a half to four hours. By another method, that of dividing the scalp into rectangular areas and irradiating each area, surrounded by a lead foil shield, in succession, the time may be reduced to from two and a half to two hours. The author reduces the number of exposures to five, so that it is possible to irradiate the whole scalp in one and one-half hours. Its essential features are that no cylindrical nor lead foil localizers are used, but that adjacent x-ray applications are made in such a manner that at those parts where overlapping does occur the incidence of the rays is so oblique and so much further from their source that no excessive dose is given. It is important to make the irradiation at right angles to the direction of the irradiation of adjacent areas, and to aim not at a point in the centre of the vertex of the lower occiput, or of the sides of the scalp, but toward the outer margin of these areas, so that half the dose goes on to the scalp and half on to the shield protecting the face and neck. If these precautions are taken there is no risk of over exposure at the overlapping margins of the rayed areas. In practice the dosage works out so nicely that every part receives an equal amount and depilation is total and complete, without anywhere a sign of over or under exposure. In theory, according to the well known laws that the quantity of rays received at any point exposed varies (1) inversely with the square of the distance from the source; and (2) directly with the size of the angle of incidence, the dose received by any part of the scalp is found to be with mathemathical accuracy, one pastille dose.

A Case of Tuberculous Meningitis without Tubercles.—Higgs, in The Edinburgh Medical Journal, reports such a case, the unusual features of which are: 1. The presence of tuberculous meningitis with much fibrinopurulent exudate at the base of the brain without any miliary tubercle formation; 2, the absence of miliary tuberculosis of the lungs and other organs; and 3, the great predominance of polymorphonuclear leucocytes over lymphocytes in the cerebrospinal fluid. The child only lived two days after admission to the hospital, but a diagnosis of tuberculous meningitis was made from the history and physical signs. At the necropsy, however, doubt was thrown on this diagnosis, as, although there was an actively caseating bronchial gland to serve as a primary focus, there was no generalized miliary tuberculosis and no tubercles in the meninges, which, moreover, showed much thick fibrinopurulent exudate, mainly posterior basal in distribution. On the other hand, the general "stickiness" of the meninges and the presence of some exudate around the vessels in the Sylvian fissures favored the diagnosis of tuberculous meningitis. The doubt as to the diagnosis was accentuated by the cytological examination of the cerebrospinal fluid. With regard to the reason why tuberculous granulations are not always found in cases of generalized tuberculosis, it may be considered that while general tuberculosis infection usually takes the form of a pyæmia it may occasionally be only a septicæmia, and that the primary tuberculous focus in the first case discharges into the circulation clumps of bacilli with tissue debris, and that these clumps, becoming impacted in the smallest arterioles, cause the formation of miliary tuberculous granulations or "tuberculous pyæmic abscesses" around the blocked vessels, but that in the second case separate bacilli only are discharged into the circulation in considerable numbers, and that these isolated bacilli do not get lodged in the small vessels. The diffuse leucocytic infiltration of the cerebral cortex and the

cellulofibrinous inflammation of the meninges may be explained as being the result of the irritation of the toxines, and of the bacilli, which have found their way from the blood vessels into the cortical substance and into the cellular tissues of the meninges, these parts especially easily reacting to the tubercle bacillus.

The Fate of Damaged Joints.—Warren in The London Medical Lancet reports cases of injury, principally fractures, involving joints, treated in the massage department of the London Hospital. From a continuous series of nearly 400 cases taken for a period of about eighteen months, he concludes that, on the whole, the results are not bad, though certainly admitting of considerable improvement. If modern treatment be carried out, the outlook for fractures involving joints is less gloomy than some would have them believe. Unless cases are made to come and show themselves after treatment has ceased, one gets a false perspective of the results; one sees cases coming up week after week and month after month with very little signs of improvement. Cases doing well slip away, their treatment is shorter, and they leave impression on the mind than do those stiff, squab, edematous, and utterly dreadful-looking ankles, as after Pott's fracture, which are constant visitors. With patience and perseverance, however, these latter assume something of their normal proportions and are, at any rate in the majority of the cases, exceedingly useful and serviceable means of progression. He has found to his surprise the after-results much better than he expected. From the cases discussed the value of early movement and massage will be readily seen in improving and accelerating recovery of function. Massage and movement alone are not suitable from all fractures, though serviceable for a great many more than is commonly supposed. Certain fractures, e.g., Pott's fracture, must have some retentive apparatus to avoid displacement, not to produce immobility of the limb. In the treatment of fractures and allied injuries, as in a very large number of medical and surgical cases, two great and apparently opposing principles are used, viz., rest and exercise. In the past too much stress has been laid on the importance of rest in cases of injury, and it is largely to the French school that the credit is due of accentuating the importance of the other factors in treatment, movement, and exercise. For movement leads to power of function, and it is by proper appreciation of the importance of each of these principles and by correlating their application in practice that one could attain such perfection as is possible in this world of mortal men.

The Condition of the Heart and Lungs after Abdominal Operations.—Lichtenberg (Munch. Med. Woch.) has tabulated the findings by repeated examination of the heart and lungs in a series of 100 patients before and after abdominal operation. The writer draws the following important conclusions:

1. That post-operative lung complications are extremely common; that they may run their course entirely unnoticed (on account of insignificance of symptoms), and that slight rises of temperature of short duration in the first days of the aseptic operations are generally due to such lung complications.

2. These post-operative changes cannot be classed as post-operative pneumonias in the ordinary sense. They form rather the background upon which pneumonia may develop, and failing this, they may disappear in a few days without having done much harm.

3. The great majority of post-operative lung complications arise immediately after the operation and are recognizable on the second, third or fourth day. The method of anesthesia has nothing to do with the number of lung complications.

4. Narcosis pneumonias are rare. The great majority of conditions must be considered embolic in origin. A few are hypostatic.

5. Well-marked heart lesions seem to play a less important part than relatively slight changes in the vascular system and myocardium.

6. Important information as to the existence of an ocult lung complication may be obtained by testing the movability of the bases of the lungs (in front).

7. By following the curve of blood pressure, and having reference to other factors, information about the condition of the circulation may be obtained which is of value for the regulation of stimulation by drugs.

It is a striking fact that 73 of the 100 cases showed after operation signs of consolidation or of bronchitis, but that not a single death was attributed to either of these conditions.

The Antisepsis of Abortion.—Championniere (Ann. de Gyn. et d'Ost.) says that we may consider a normal labor as a fresh wound, a labor after contact with hands and instruments as a dirty wound which will often become infected. He puts us on our guard against wounding the uterus by curettings which produce a site for the entrance of infection. Intrauterine injections continue these abusive measures. Lastly,

the uterus is left distended with tampons of iodoform or sterilized gauze. All this is defective and often causes infection. His treatment consists in the injection into the uterus of a few cubic centimeters of strong carbolized solution, in cleansing the vagina thoroughly with speculum in place, and allowing no injection. Abortion should be treated in the same way. Injections are of value neither before nor after abortion. The writer detaches the ovum with his finger, makes the same small injection of a strong solution, and allows no injection. This procedure is possible only when the case has not been much handled. Infection caused by abortive measures should not be confounded with puerperal fever. When there is infection already present with a retained ovum or only debris, we must first cleanse the uterus through the speculum with a small tampon soaked in carbolic acid solution. Chloroform should be given for this cleansing to allow of thoroughness and that dilation may be practised. We may use both carbolic and peroxide of hydrogen on small tampons, pushed up to the fundus. Having made your cavity antiseptic, remove all debris with the nail. There is generally no need of curetting. When infection is present curetage sufficient to remove debris, but not to wound the uterus is necessary. Then cleanse the cavity with carbolic or peroxide on a sound; next push up to the fundus a small tampon soaked in creasote and glycerine, 2 to 5 per cent. This cauterizes but leaves no slough that will putrefy. Use no other tampon or injection, and have nothing in the vagina. Creasote is an admirable, nontoxic antiseptic.

Functional Albuminuria in the Infant.—Mori (Riv. di Clin. Ped.) has investigated many types of functional albuminuria in the infant. Alimentary albuminuria is the most important. It frequently occurs with digestive disturbances and neurasthenic states, finding its origin in an irritated state of the intestinal mucosa, which causes in a reflex way a disturbance of renal pressure, with an abnormal filtration of albumin. The children studied were healthy, heredotuberculous subjects, convalescents from scarlatina, etc. Albuminuria of puberty is frequently affected by position; in these persons there is a marked predisposition to vasomotor disturbances. Functiona albuminuria occurs especially in adolescence, and predominates in boys. Many cases of transitory albuminuria appearing in children with anginas or dietetic disturbances are an expression of a diminished resistance of the kidney tissues which may be congenital, and which has no relation to inflammatory or infective elements. Orthostatic albuminuria is an abnormal molecular diuresis, a hyperactivity of the epithelial tissues of the kidneys, an exaggerated permeability of the kidneys. Such infants are poorly developed, under-weight, have vascular aplasia, small hearts, and low arterial tension. They are subject to nervous symptoms, spasmodic cyanosis of the extremities, and cold feet. There may be an incomplete development of the kidney epithelium. First, in changing to the upright position there is vascular anemia of the glomerular tissue; then a rapid afflux of blood to the kidney; lastly an excessive filtration of urinary substances from the blood. He examined 750 children from the Children's Clinic at Florence experimentiug with the position of lordosis. The author considers that orthostatic albuminuria is caused by hypotonia of the vessels in and neuroarthritic subjects, or in times of development and circulatory disturbance. It is independent of any renal lesion.

Miscellaneous.

A Superior Laxative.

I have used Abbott's Saline Laxative and believe it to be superior to any laxative I have ever tried. The more I use it the better I like it. My patients say it is splendid, claiming that it does not gripe and does its work without any annoyance or bad feeling.

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Dr. Givens' Sanitarium for nervous and mental diseases at Stamford, Conn., has a separate department for alcoholic and drug patients and the statute of Connecticut permits such patients to voluntarily commit themselves for a period not exceeding one year. The regular systematic life, under medical supervision is excellent. Write Dr. Givens, Stamford, Conn. for particulars.

Chronic Cystitis with Alkaline Urine.

If the urine is alkaline nothing gives so good results in chronic cystitis as benzoic acid, given in capsules of five grains every three hours, in connection with teaspoonful doses of saunetto. If an antiseptic is desired give salicylic acid internally in five-grain doses, at intervals of from two to four hours, or if contraindicated, then use boric acid in powder form ten to twenty grains instead.

George Lincoln Walton, M.D., has just completed an important series of three papers, entitled "Those Nerves," for Lippincott's Magazine. In them he discusses various phases of nervous disorders, real and imaginary. The papers will bear the subtitles, "The Human Sensitive-Plant," "Sidetractibility," and "Character-Leakage," the first of which will be found in the July number. Dr. Walton's unique and helpful little book, "Why Worry?" has gone though several editions and proved a boon to thousands of readers.

Out of the Ordinary.

Abbott's Saline Laxative has two features which distinguish it from the common run of saline cathartics: First, when taken in cool (not cold) water immediately or rising, it acts once, in an hour or two (a clean, satisfying flush) and usually no more; whereas ordinary salines keep the patient busy all day long. The annoyance of this when one is away from home or busy in business is great. Besides, there does not seem to be any failure in the action of this saline when used continuously for long periods—no habit forming necessitating increase of dose, but rather the reverse.

In one case a physician reports that he has taken a single teaspoonful of it every morning for 12 years, and still finds that dose amply sufficient to maintain regularity in his bowels.

In the trade everywhere. Samples sent to interested physicians by The Abbott Alkaloidal Co., (Chicago) on request.

Benzine Poisoning.

Two varieties of benzine poisoning may be recognized, according to H. Wichern; Where benzine is swallowed, or where inhaled and excreted through the lungs. In the former instance there is vomiting, disagreeable eructation, burning pain in the stomach, headache, pain on swallowing, and vertigo. Rarely such large amounts are taken that the patient will become unconscious, with mydriosis and immovable pulse. Death sets in much later, and is probably due chiefly to complications, principally aspiration, pneumonia. In young children, even doses of 15 Gm. may cause coma, cardiac weakness, clonic convulsions, and death in one hour. Intoxication from the fumes of benzine occasionally occurs in chemical factories: the patients rapidly lose consciousness, and both circulation and respiration require active stimulation. A prominent symptom is constant muscular tremor. Animals subjected to benzine vapors will show the same tremor and at autopsy there is hyperemia of the brain, effusion into the serious cavities, infarctions in the lung, and a flabby heart.

Cases of chronic intoxication have also been described, and there are several instances on record where benzine was inhaled purposely, since it gave rise to pleasant dreams. In one case there were such permanent lesions as retrobulbar neuritis, with central scotoma for red and green.

Treatment of acute poisoning calls for gastric lavage, if the benzine were swallowed. Cardiac and respiratory stimulants should be used freely. It is probable that benzine is not excreted through the urine, but solely through the lungs.—Muench. Med. Woch.

Noninfectious Disease of the Adnexa.

H. Roulland states that noninfectious disease of the adnexa is deserving of greater attention than is usually given to it. We have under this head active and passive congestions, adhesions, hemorrhages, cysts, scleroses, and painful conditions that cause great suffering. The causes of these conditions are found by the author in the periodic congestions to which these organs are subjected, the displacements of which the uterus is susceptible, and the metritis and salpingitis that occur aside from infectious inflammatory conditions.—La Gynecologie.

Pancreatic Cyst in an Infant.

Telling and Dobson report a case from the Women's and Children's Hospital in Leeds of an infant, eleven months of age, brought in for a swelling of the abdomen of two months' standing. The child was in fair condition, the abdomen a little full. The stools were normal. The girth was 18¼ inches. The swelling was mainly central. There was resonance in the flanks and dulness at the umbilicus. The weight was 19¼ pounds. Two weeks later the abdomen measured 21¾ inches. One month after admission, on examination under anesthesia, a globular, firmly fixed tumor which did not move with respiration was made out. Two weeks later at operation it was found that the tumor was a cyst arising from the head of the pancreas. The cyst was drained and 1½ pints of fluid escaped. This was milky, slightly bloody, alkaline. Sp. gr. 10.25. Contained much albumin, but no sugar. No fermentation was obtained. No organism was found, but the fluid contained pus, blood, and homogeneous *debris*. The patient made an uninterrupted recovery.—British Journal of Children's Diseases.

Johann Hoff's Malt with Iron.

(PEPTONATES OF IRON AND MANGANESE) ITS RELATION TO ASSIMILATION.

The continued presence of iron and manganese in the blood—the cause of health and strength—is due, not so much to the *amount* ingested, as to the *form*, the main condition being that *enough* is absorbed. As to the form, we are told by Fraenkel (Arzneimittel-Synthese), that the peptonate is to be preferred if we would avoid the unpleasant effects of iron. The case is the same with respect to manganese. Both are essential; both in the organic form, follow scientific precept strictly, and afford the largest amount of their material to the blood.

Undializable Constituents of the Urine in Pregnant Women In Normal and Pathological Conditions.

M. Savare has examined the undializable residue of the urine, which is in considerable quantity in normal and pathological conditions in pregnant women, and has injected the residue into animals to ascertain whether it has toxic properties. He finds that there are contained in the urine of women who are in a pathological condition while pregnant, especially when attacked by eclampsia elements that are markedly toxic to the experiment animals, causing them to have stupor and convulsions, and killing two out of ten animals injected. The relation to the causation of eclampsia of these toxic elements is not as yet clearly defined, but should be further studied, since it may prove a fruitful field of observation. —Annali di Obstetrica e Ginecologia.

Dyspnea Following Nasal Instillation of Menthol Oil.

A. Delille, in a paper read before the Societe de Pediatric in Paris reported the case of an infant in whom a nasal instillation of menthol oil, 1 per cent., was immediately followed by violent spasm of the glottis. After fifteen minutes the child recovered. Guinon had observed several similar cases. Marfan had never seen one. Comby thought 1 per cent. was too strong. He used menthol oil 1-300.—The British Journal of Children's Diseases.

Chronic Appendicitis in Children.

Comby (Bull. et mem. de la Soc. med. des Hop. de Paris). Appendicitis is very rare in infancy, but becomes more and more frequent as the child grows older, and is common after five years. It is essentially a chronic disease, in which the acute form is only an episode. The ætiology is often obscure. Fine, well-nourished children, without any previous digestive troubles, are suddenly seized with appendicitis. Heredity, family predisposition, lymphatism and arthritism are incriminated in such cases. In others there may be adenoids, tonsillitis, otitis media, cervical adenitis, gastroenteritis or mucomembranous enterocolitis. Among infectious diseases influenza plays an important role in the ætiology. Typhoid fever comes next, and then scarlet fever, measles, mumps, varicella and, generally speaking, all the specific or non-specific infections which in the child more than in the adult cause an overgrowth of the lymphoid tissue. The symptoms are variable and complexr Cyclical or periodic vomiting, with or without acetonuria, in most cases is a symptom of chronic appendicitis. The prognosis should be guarded. It is impossible to count on a spontaneous cure. Surgical intervention is required in most cases. The paper ends with a brief summary of 105 instructive cases.—British Journal of Children's Diseases.

Treatment of Syphilis of the Upper Respiratory Tract.

Dr. Livien discusses the identification of the spirochæta pallida and the detection of specific antibodies in the serum of people infected with syphilis. No serum therapeutic treatment had been found effective. Mercury and iodides remain the chief remedies. He states that mercury is best administered by injection or inunction, and that atoxyl, given in efficient doses, has proved experimentally to produce similar results, but is dangerous to the optic nerve. The diagnosis should be certain before treatment is started. Spirochæta shoulb de found. or time given for the serum-test, or the appearance of the roseola. In most of the cases where inunctions and injections are employed local treatment is unnecessary. Mercurial plaster should be used to cover chancres on the lips or face. Nosophen is a good dusting-powder, and orthoform may be used in painful cases. Malignant forms of the disease responded best to injections of calomel. When inunctions are used baths of soap and sulphur may be usefully added. The iodides are most useful in the tertiary lesions, but act well in vegetating secondary patches in the nose or throat. Iodism may be removed by daily adminlstration of 15 grains of sulphanilic acid in 7 ounces of water. In sensitive cases iodipin is a useful substitute.—British Medical Journal.

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Disappearance of a Tumor (Sarcoma?) Following Injections of Coley's Fluid.—Ashdowne, according to The London Medical Lancet, reports such a case in a woman, forty-five years of age. She had a fusiform swelling of regular outline and well defined limits in connection with the lower part of the right humerus with no suspicion of fluctuation or egg shell crackling about it, the skin and muscles were not implicated, but the superficial veins were a little prominent and there was an enlarged gland in the right axilla. The arm was wasted and the muscles were weaker than those of the opposite side; the movements of the elbow joint were unimpaired. Pain was only complained of when using the arm or on applying firm pressure. No other bone abnormality could be made out. There was no history of injury or of fracture, and the question of syphilis was carefully gone into, but no evidence of it could be obtained. Treatment with Coley's fluid was given. The author began with half minim doeses and increased them by quarter, half, and one minim until a maximum of nine minims was reached; the first injections were given into the arm outside the limits of the growth, but the later ones were injected into it, and twenty-three injections in all were given. They were followed by pain and swelling at seat of injection, with general malaise, headache, nausea, vomiting, and pains in the limbs and joints followed by the appearance of subcutaneous hæmorrhages resembling bruises, but with only slight rise of temperature and increase of pulse rate. These after effects were unpleasant. The swelling disappeared and the structure and outline of the bone resumed its normal appearance.

Treatment of Angina Pectoris.—Allbutt (Folia Therapeutica) believes that of all the dangerous maladies this is the most amenable to treatment. There are three objects to be attained in treatment: First, if possible to mitigate the lesion of the attack; second, to reduce the stresses; and thirdly, to block the inhibitory influence on the heart. To combat the local condition directly we may use antidotes, such as salicylates if there be rheumatic condition; iodides and mercury if syphilitic; also specific treatment for gout, if that be present. The toxins of other diseases, such as influenza, cannot be directly neutralized. To reduce the tension, gentle and frequent mercurials, such as calomel, with laxative mineral waters, calomel, salicylates, iodides, and strict diet may be employed. Flatulence and catarrhal states of the stomach must be relieved. Meals must be restricted in quantity, carbohydrates must be used sparingly. Alcohol, strong tea and coffee must be avoided. Rest in bed is essential. From the first attack of angina the patient should be sent to bed as if he had an aneurism, so as to reduce the work of the heart as much as possible. The pressure should be reduced as low as consistent with health by vaso-dilators, in co-operation with the measures just described. The value of the nitrites in reducing aortic pressure is well known, and although their action in this respect is transient, it seems beneficient to reduce tension even for short periods, and so give the heart a chance to recover. Osler urges the use of large doses of nitrites, and has given as much as 30 minim doses of liquor trinitrini three times daily. Sir W. Gowers thinks that the prolonged use of the nitrites has a "steadying effect on the vaso-motor centre." The value of the iodides in arterial diseases, arterio-sclerosis, aneurism, and angina pectoris is well recognised. They should be given in doses of 3 to 5 grains thrice daily, unless there be a definite syphilitic history, when larger dose is required, 15 to 20 grains. This should be continued for six months, with such temporary suspension as any intolerance of the patient may indicate. In the paliation of the attacks the nitrates are the chief remedy. To block the reflex by which the heart is inhibited he uses atropin continuously until the liability to an attack seems to have vanished. As tolerance is established the dose must be increased accordingly. Morphia also probably blocks the dangerous reflex path, and should be used in doses of not less than one quarter of a grain hypodermically, or if there be any hesitation about giving this dose, one-sixth ef a grain can be given, and this repeated in about ten minutes.

Male Characteristics Developing in a Girl.—In The Med. Press, London, Thummim reported the case of a girl, aged 17 years, who first menstruated at the age of fifteen, but not again. At that period a luxuriant beard began to develop; hair also grew on the breast and on the linea alba, and the voice became deeper, but the figure remained feminine. The external genitals were those of a female, the uterus was normally developed, and the ovaries could be plainly felt under an anæsthetic as small hard substances. The girl died from sepsis commencing in a panaritium. The autopsy showed well-developed mammæ, female genitals and a feminine pelvis. The ovaries were small and hard without any trace of ovulation. The right supra-renal body contained two brown nodules, and the left was converted into into a tumor as a large as a man's fist, which proved to be a struma

suprarenalis. The thyroid was enlarged, but the hypophyses were not. The case was, therefore, one of atrophy of the germ glands with hypertrophy of those of the vascular system.

Urachal Cyst Simulating Appendicular Abscess; Arrested Development of Genital Tract.—Doran, in The London Medical Lancet, mentions the case of a patient, a girl of 17½ years, who complained of pain in the right side of the abdomen for one month previously. On examination a large swelling was found to the right of the medium line; there was no fever. The vagina was only two inches in depth and a small opening leading to a canal was discovered at the upper end, through which the menstrual flow was seen to come. At operation the mass was found to be a cyst of the urachus containing clear fluid. The cyst was connected to the bladder by means of a cord and the upper end lay just beneath the umbilicus. In addition the uterus was found to be bicornate, both horns lying below and adjacent to the cyst wall. The cyst lining was removed and the cavity was closed by buried sutures; the patient made an uneventful recovery.

Doran reviews the pathogenesis of those cysts. The epithelial lining of the urachus, according to Wutz, grows steadily up to the 25th year, and in about one-third of the cases cystic dilatations of the canal are present. The writer found that the vesical orifice of the urachus is guarded by a transverse valvular fold. Others have found that in a considerable number of cases, the upper wall of the bladder presents a diverticulum of varying depth, sometimes even as far as the umbilicus. A urachal mesentery is not uncommon. Cysts of the urachus present themselves in four different types: (1) with fistulæ; (2) primary cystic fistulæ communicating with either the bladder or the umbilicus; (3) pure urachal cysts; (4) secondary cystic fistulæ, developed from pure cysts which have acquired communications with the bladder or the umbilicus. The author guards against the temptation to call all cysts in the neighborhood between the bladder and the umbilicus, urachal cysts. Many of these are merely cases of encysted peritonitis, tubercular or otherwise.

Sodium Salicylate in Rheumatism.—Lees: (Proc. Royal Soc. Med.) says that sodium salicylate, when given to a rheumatic patient, does not cause any weakening of the cardiac action. The idea that it is a depressant probably arose from the presence of impurities in the drug during its early application; these are now rarely met with. But rheumatic taxæmia itself always causes more or less cardiac weakening, and this may sometimes become specially manifest. The erroneous idea as to the effect of sodium salicylate on the heart has led to its being given only in small doses. The addition of double the quantity of sodium bicarbonate is an effectual means of diminishing side effects, and the unpleasant taste may be covered by glycerine and peppermint water or chloroform water. This combination should be given in frequent and increasing doses until the occurrence of any unpleasant side effect is observed. The paper gives full details of the treatment of acute and subacute rheumatism by this means.

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Toxicity of Mother's Milk.

Raymond Francois believes that he has seen cases in which the milk of its own mother has been an evident poison to an infant, while it would thrive on the milk of wet nurse or on artificiol feeding. He believes that there are conditions in which the human milk has a toxic effect on the infant. This poison is evidently in the milk, and is due in general to some form of intoxication in the mother, the poison of which is carried over into the milk. It has been shown that coloring and other matters, diphtheria antitoxin, etc., are carried over into the milk. Menstruation, dyspepsia, constipation, and similar conditions may produce this poison.—Journal de Medecine de Paris.

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Fibrolysin in Deafness.

W. M. Mollison reports five cases of deafness treated by means of injections of fibrolysin. Of these, two distinctly benefitted; one, a girl of thirteen, improved for a while, but ceased attending because the injections gave some pain; one was apparently unaffected, though the patient said she heard better; and the fifth case, though quite recent, seemed to be improving slightly and was still under treatment. One ampoule (2.3 Cc.) was injected into the gluteal region three times a week, the skin being first frozen with a spray of ethyl chloride, and the treatment in each case continued for some considerable time.—Guy's Hospi. Gazette.

Treatment of Cerebro-Spinal Meningitis with Flexner's Serum.—In the Edinburgh Medical Journal Ker describes his experiences of this treatment in a series of thirty-three cases during a recent epidemic of cerebro-spinal meningitis in Edinburgh. The normal dose adopted for children was 30 c.c. if possible, but if much less fluid than this amount was obtained on lumbar puncture 15 c.c. were substituted, and in particularly bad cases the remaining 15 c.c. were given subcutaneously. The best plan appeared to be to repeat the injection daily for the first three or four days. If the injections were taken badly and were followed by restlessness or distress, it was considered advisable to await a day or two. Usually as much fluid as would flow freely was removed by lumbar puncture, and then as full a dose of the serum was given as could be introduced without causing pressure symptoms. The broad rule was laid down that less was to be injected than had been abstracted. The favorable results to be noted are: A lower temperature next day and frequently less delirum; some return of consciousness; an improvement in the color of the complexion; a diminution in the pain and stiffness about the head; and, occasionally, something in the nature of a crisis, with rapid amelioration of the symptoms. The mortality in his thirty-three cases admitted in all stages of the disease, was 14. The author was struck by the completeness and rapidity of the recovery in successfull cases, as contrasted with the results of this disease in patients not so treated. The survivors of the latter class usually had been some two months in the hospital before becoming fit to be discharged, and were often totally deaf. The Flexner cases were discharged completely well. with two exceptions, and few were detained in the hospital for more than a month. In the case of relapses, also, the serum proved very efficient.

A Case of Fatal Hemorrhage from the Auditory Meatus in an Infant.—Uchermann (Archiv. f. Ohrenheikunde) mentions the case of an infant whosuffered from a glandular abscess below the ear, on the sternocleido-mastoid muscle, which rupturred into the auditory meatus. This was followed by suppuration and repeated profuse hemorrhages from the auditory meatus. Partial resection of the mastoid process was performed, for better inspection of the bleeding point, but the condition remained obscure. The antrum and middle ear appeared normal, the hemorrhage apparently coming from the innermost portion of the auditory meatus, near the tympanic membrane. Metastases appeared on the following day, and a few days later there was a terminal hemorrhage, to which the patient succumbed. The abscess had apparently emptied itself through the auditory meatus, as no more pus was noted later on; but, nevertheless, the venous wall became eroded through the abscess, which infected the resulting hematona.

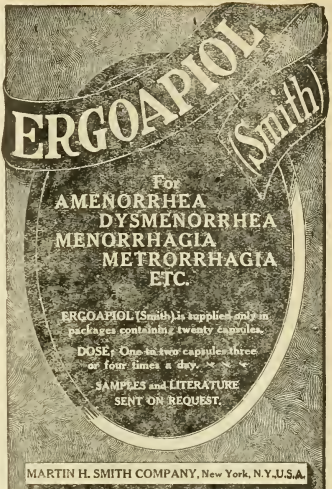
Operative Haemostasis Without Ligatures.—Chaput (Societe de Biologie) says that the hæmostatic properties of gelatine may be utilized in a prophylactic way injecting a gelatine solution subcutaneously before the performance of major operations in order to increase the coagulative power of the blood. It was found that 200 c. cm. of a 5 per cent. gelatine solution injected under the skin of the thigh immediately before a surgical interference are sufficient to render ligatures almost, or quite, unnecessary in the course of the operation. It snffices to grasp the bleeding vessels with hæmostatic forceps and to remove the instrument again after a while. The vessels bleed no more nor does a secondary hæmorrhage follow. Resections of the knee and the tarsus were performed in this manner, as well as two hyrterectomies. In a case of amputation of the leg the femoral artery olone was ligated for the sake of precaution. At any rate, gelatine solutions should be injected *after* major operations, as secondary hæmorrhages may be guarded against by this procedure.

Dissecting Aneurysm of the Aorta in a Boy aged 12 years; Rupture into Pericardium.—In the St. Bartholomew's Hospital Reports, Holder reports a case of dissecting aneurysm of the aorta in a boy, aged 12 years which ruptured into the pericardium. The boy was admitted to the hospital under the care of Dr. Ormerod, suffering from pain in the chest. The heart showed the following signs: Apex beat in sixth interspace one ince outside the left mmmary line. The area of cardiac dullness extended upwards to the second costal cartilage, but not to the right of the sternum. In the third and fourth interspaces, to the left of the sternum, a loud to-and-fro murmur was heard which was thought to be a pericardial friction sound. Pulse 136; respirations 28; no dyspnœa. A presystolic rumbling murmur in the nipple line in the fifth interspace was heard later. Nine days after admission the boy was suddenly seized with a spasm of difficult breathing and died within a few seconds. Postmortem: The pericardium contained 12 ounces of blood and blood-cot. The heart was small and almost empty of blood. The valves, myocardidm and coronary arteries were natural. The first part of the aorta was elongated, greatly diiated, forming a large fusiform aneurysm. The fusion dila-

ion ceosed rather abruptly above at the evel of the ductus arteriosus. Considerable nud-arteritis was present, with nodular hickenings of the intima, but without ulceration. About an inch above the aortic orifice the inner and middle coats had been orn by a transvere rent, extending almost completely round the vessel. From the annular rent, a second rent proceeded in an upward vertical direction in the posterior part of the vessel. Towards the pulmonary artery this ruptured part of aorta was seen to be covered by a recent clot, and a dissecting aneurysm, the size of a small walnut, had formed in this situation, burrowing into the sheath which is common to the two vessels. There was a small hole in the sheath of the dissecting aneurysm indicating the rupture into the pericardium. The aneurysm was not manifestly due either to congenital syphilis or to the action of microorganisms. The dissecting aneurysm probably originated at the time of the onset of pain in the chest, which was fourteen days before death.

Treatment of Chronic Degenerative Lesions of the Heart and Aorta.

James Barr says that the ultimate causes of theses degenerative lesions are frequently set down to toxins in the blood, but he has shown that at least in a large number of these cases there is an increase in the effete material in the blood as evidenced by the lower freezing point. Of all toxic conditions perhaps syphilis is the disease most frequently associated with these changes, and Dr. Bramwell thinks that it acts through the vasa vasorum, thus impairing the nutrition of the vessel. Among the other toxic agents he mentions typhoid fever, intestinal toxins, septicemia, influenza, gout, myxedma, diabetes, lead, ergot, and other pressor agents, as caffeine, theobromide, digitalis, adrenalin, purin bodies. The general opinion would seem to be that these toxic agents act directly on the walls of the aorta, producing the degenerative lesions, but it is his opinion that they act indirectly by raising and maintaining the blood-pressure at a high level, thus destroying the elasticity and impairing the nutrition of the vessel walls. Were it otherwise the pulmonary artery would be affected as the aorta, which is not the case. The dependent arteries of the lower extremities have a higher blood-pressure than in the upper extremities, and the former are usually much more affected with sclerotic changes than the latter. He then considers how this high blood-pressure in the aorto is maintained. If the systolic and disastolic pressures be both high, with a gentle gradient,



you can depend upon it that the cardiac muscle is still fairly healty and the aorta fairly elastic. You should therefore lessen their work by devoting your attention to the periphrey. Vasomotor relaxants are here of not much value except as temporary expedients. If the patient have gouty kidneys, the purin bodies and other nitrogenous elements of food should be cut down and there should be a free administration of the bonzoates. If there is too much lime in the system, all milk foods and jellies should be eliminated from the diet, and decalcifying agents should be freely used. The action of the skin should be encouraged and graduated exercises should be taken. With high systolic and moderate or low disastolic pressure the elasticity of the aorta is becoming impaired. When there is a difference of mm. of mercury it is high time to think of effecting repairs. The patient should be kept on a light, dry, nonstimulating diet, with little or no salt. Decalcifying agents as a rule are useful and moderate catharsis should be produced. When there is a high systolic and a low disastolic pressure, a dilated heart, and high intraventricular disastolic pressure, the diet should be dry and nitrogenous if the kidneys are healthy; the bowels should be kept

open and a course of digttalis, squills, and num vomica or srrychnine is beneficial. These are not the cases for mountain climbing, but for moderate exercise on the level. When there ia high systolic and low diastolic pressure, with aortic regurgitation, the result is largely influenced by the amount of elasticity left in the aorta. The diet should be light, dry, and nitrogenous, and the exercise should be moderate. A course of phosphorous acid and strychnine often answers well. When the systolic pressure is failing, with a relatively high diastolic pressure, the cardiac muscle is getting much impaired. In these cases the question of the free calcium ions in the blood must be considered. In such cases small doses of glycerophosphate of calcium and large doses of phosphoric acid are of benefit. When the systolic and diasiolic pressares are failing and there is edema of the extremities, a temporary rest is highly beneficial. The diet should be light, dry, and nutritious, and nitrogenous if the kidneys be fairly healthy. Sodium chloeide should be eliminated and a course of cardiac tonics prescribed. In many cases of myocarditis the right coronary artery is much more affected than the left. A good cardiac tonic in such cases consists of glycerophosphate of cal cium, strychnine, and phoephoric acid.

The Lower Segment of the Uterus.

Cyrille Jeannin distinguishes the inferior segment of the uterus as the isthmus, or lower third of the fundus. It is of great importance pathologically and normally in pregnancy. Its walls are much thinner than those of other portions of the uterus. In front it is thinner than behind. Its lower limit is the internal os. Its thinness predisposes to rupture of the uterus. Its form varies with the presentation of the fetus. During pregnancy it lends itself to the development of the fetus by stretching. By some it is supposed to be the cause of the beginning of labor. Its dilation by rubber balloon is a most efficient means of inducing labor. In the early part of labor it confracts, but later remains inert. During pregnancy the implantation of the ovum on this segment is a frequent cause of abortion and of hemorrbage in placenta previa. During labor the adhesion of the ovum to this segment is a cause of very slow dilatation of the cervix.—La Presse Medicale.

Tracheobronchial Adenopathies in Their Relations to Chronic Pulmonary Tuberculosis in Children.

Charles Leroux, as a result of the treatment of many cases of tracheobronchial tuberculosis, states that there are two modes of origin of this condition; it may begin in the glands and extend to the lungs, or vice versa. Age is an important factor in determining its origin. Unilateral adenopathies are found in children from two to five years of age. Tuberculosis of the apex is found in children between six and ten years of age. Bilaterial gland enlargement also occnrs at the same ages. Cure of these glandular enlargements before the lungs have been affected is qnite easy if the child is sent to live at the seashore for a considerable time. A short sojourn only produces a cessation of the process for a short period, and it recurs again. Radioscopy is very useful in making the diagnosis between tuberculosis of the glands and that of the apex. The germs enter by way of the lungs and upper respiratory tract to general. Rarely they enter from the intestines or descend from the rhinopharyngeal region. —Archives de Medicine des Infants.

Hydrotherapy in Hospitals.

According to Schaper, who has recently made a tour of Norway, Sweden and Denmark, all the larger hospitals of those countries are provided with a special pavilion equipped for the giving of all kinds of baths. The same may be said of many of the leading German hospitals.

A few of the hospitals in this country have introduced hydriatic measures, but in most of the leading hospitals of the United States there is still a sad lack of appliances for the use of water and other physiologic measures. When visiting a large Eastern hospital recently, the editor made inquiry with reference to provision for the use of water, and was told that the leading physician was quite enthusiastic about hydrotherapy a few years ago, but his ardor had cooled off, and he had recently said nothing about it. In fact, the opinion was entertained that hydrotherapy was one of those passing fads which would soon be no more talked about than the sulphurreted hydrogen method of treating tuberculosis, or any other of the medical fancies which seem to take possession of a certain portion of the medical profession from time to time.

This is a great mistake. Hydrotherapy is here to stay. It is not a new thing; it is not a fad. It is as old as the earth, and though it has been greatly neglected, will gradually win its way to increasing recognition. Water is unquestionably the most powerful, the most versatile, the most universal of all therapeutic agents. To be sure, water itself is not curative. The same may be said of every other remedy. The remedy does not cure. The curative power resides wholly in the body. It is the blood that heals. The same forces are required

to heal the sick man as to maintain the well man in a state of health. The reparative forces of the body are identical with those forces which maintain the growth and nutritive equilibrium. The curative powers of the body can be most readily stimulated into activity and modified as necessary by those natural aids to recovery which are classed under the general head of physiologic therapy.—Good Health.

Dr. Woods Huthison in his article on measles states: "The very mildest and most insignificant attacks may be followed through carelessness or exposure by a fatal bronchitis. Indeed in view of the distressing which our histories of tuberculosis in children the words, "came on after measles," it is highly advisable to watch carefully every child as regards abundant feeding, avoidance of overwork or overstrain, and of all unnecessary exposure of infection, wond or wet for two months after the attack."

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Interpretation of the Porro uterus in Relation to the Third Stage of Labor.—Hart, in the Edinburg Medical Journal, says: When Porro, in 1870, performed Cæsarean section according to his well known method. he not only made the first distinct advance in the perfecting of that operation, but gave obstetricians specimens on which the phenomena of the third stage could be studied in a way no other natural experiment has since afforded.

Since 1886, when Barbour published the most oustanding and able paper on such specimens. the whole question of the third stage mechanism has been debated without any final agreement as to its nature, and, indeed, at present an apathy on this subject has come over the profession—over both investigator and practical obstetrician.

The real reason of this blight on investigation has been that the question has usually been investigated on the supposition that the separation must take place in such a way as to check hæmorrhage, i. e., during pain, and any view as to its occurrence by any other mechanism, after a pain, for instance, has been viewed with the greatest suspicion, especially by the general practitioner, to whom the "relaxation after a pain" is anathema, and "uterus like a cricket ball," the only safe and satisfactory descriptive term.

Matthews Duncan held strongly that the placenta separated from shrinkage of the placental site, and when confronted with the fact fact ascertained by Barbour—that a shrinkage from 7 ins.x7 ins. to 4 ins. x4 ins. did not bring about separation—merely remarked in the well-deserved eulogy he gave Barbour, that he had no doubt the placenta separated at a lower shrinkage area.

After some leagth treating the pros and cons, the doctor points out the following faults:

1. The placenta is separated, or an attempt is made to separate it, during the pains—the wrong mechanism of separation, I hold.

2. The uterus does not get the necessary rest between its contractions, and thus inertia is brought on.

3. When partially separated, the expression may tear off the bulk of the placenta or membranes from an unseparated portion.

The *seond method* is to keep the hand permanently on the uterus, wait for pains, and not to compress the uterus unless there are indications for it, the main one being hæmorrhage. The size of the uterus should be noted, and only when its bulk markedly diminishes, indicating separation, should gentle expression of the uretus or

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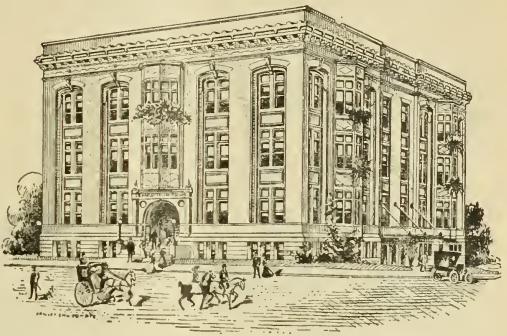

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Highlands, - - - - - - - - North Carolina

pressure in the suprapubic region, according as the placenta is in the lower uterine segment or in the vagina, be employed.

This method goes on the theory that the placenta is separated after the pain, that hand pressure will not separate it safely at the time, and that the safe time to use hand grasping is after the placenta has separated.

Tge time for the third stage varies from 20 minutes to an hour, and the practitioner who gives the proper time and follows this plan with the necessary patience Nature demands, will have the reward she always gives to those who understand and obey her.

Darwin, Evolution and Pathology.

The recent celebrations at Cambridge of the centenary of the birth of Charles Darwin and of the fiftieth anniversary of the publication of the "Origin of Species" were remarkable not only for the wide area from which those taking part in the celebration were drawn, but also, and even more, for the unanimity with which the importance of Darwin's teaching was appreciated. The meeting at Cambridge emphasized the fact that the few who seem to claim that Darwinism has been superseded are either themselves misunderstood or are not fully acquainted with what Darwin really taught. Those who know his teaching best are best able to appreciate how widely his ideas have penetrated into every science and how adaptable in many directions those ideas were and are, so that it is extremely difficult to say of any work done since his era that it is directly antagonistic to his theories.

The central and general idea of evolution is very old, but until Darwin arose, no simple or reasonable explanation had been given of the method by which this evolution might be brought about. Many had recognized the apparently progressive change in organic forms, so that there was an almost continuous slope from the lowest forms to the highest, but it was hardly definitely recognized that all these organisms might be part of a true genealogical tree. Darwin was perfectly original in pointing out that while change in organic forms depended on the variations and peculiarities present in every organism, the persistence of these changes was dependent upyn their power of agreement with the conditions in which the organisms were placed. The question whether the variations are great and immediate or slow and little is on another plane; the main doctrine depends on the survival of those forms which are best adapted to the circumstances in which they find themselves. The evolution of plants and animals is now universally admitted, but it is not sufficiently perceived that the doctrine of evolution is applicable to many other sciences than biology. Recent researches have indicated that in matter itself there has been an evolution of elements, with the ultimate survival of those which could endure the conditions of their environment.

It is, however, in the realm of pathology that the importance of evolution is of the greatest interest to us. In the never-ending struggle between an animal and the parasitic micio-organisms invading it, forms are slowly evolved which have greater and greater power of resistance to the microbic attacks, and thus in time a racial immunity of greater or less power is reached. This is well exhibited, for example, in the case of measles. Through centuries measles has existed as an epidemic disease in this country, and by a selective removal of those in whom the disease was of special severity a race has arisen in whom measles is comparatively mild, though even at present some 13,000 die yearly from the disease in England and Wales. That this diminution of the severity of measles is in no way the result of a weakening of the virus is conclusively shown by the result of the introduction of the disease to a race to which the disease is new, when an appalling mortality rate will occur, as was terribly exemplified in the Fiji Islands some thirty-five years ago.

During the proceedings in honor of Darwin at Cambridge, Professor Metchnikoff referred to the evolution of resistant strains of bacteria. In the lower organisms which possess to a high degree the power of rapid multiplication we are able to see ourselves the evolutionary process at work. To the bacterium which passes through hundreds of generations in a day, that day is as a thousand years to higher organisms, and a bacterium may undergo changes in a few hours by which its qualities are absolutely modified. Its virulence as an agent of disease may be enormously increased or profoundly diminished. The attenuation of a virus, while passing through the body of a resistant host, is probably only another example of rapid evolutionary changes in microorganisms.

Such widely differing topics as racial addiction to alcohol and structural modification in parasites can be discussed from their Darwinian side, but we have said enough to show that by a correct appreciation of evolution and the doctrine of the survival of the fittest the medical man is enabled to penetrate more deeply into the mechanism of morbic processes, and to un-

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derstand more fully the complexities of immunity which prevail in the animal world. —London Medical Lancet.

Tuberculous Endocarditis.

Francesco Fulci, after going over the literature with reference to the possible occurrence of tuberculous endocarditis, sums up by saying that the opinions of authors are still at variance as to the possibility of its occurrence. Perhaps these lesions are merely toxic, not caused by the actual presence of tubercle bacilli. This theory is supported by the absence of specific bacterial lesions and of specific histological formations. Lesions of the same kind can be produced in dogs by injection of emulsion of bacillus of Koch into the carotid artery, after ligature of the ureter made the day before the injection. The result is specific granulations disseminated over the internal surface of the left ventricle and auricle, the aorta, and ventricular surface of the aortic valves. This tuberculosis may be produced without any trauma of the heart, either by direct injection of the specific bacilli into the heart, or by carotid injection after suppression of the kidney function. The examination of the lesions showed necrotic, inflammatory, and reactive phenomena. The bacteriological examination showed few bacilli in the superficial fibrinous deposits when the germs were injected into the blood. The author sums up two groups of experiments on animals made by himself thus: he dissents from the opinions expressed by others in that he obtained no granules that were undoubtedly tuberculous; he never succeeded by endovenous injection in producing undoubted inflammatory alterations of the valves; Marchiafava after years of observation never encountered specific endocardial lesions in tuberculous subjects.—Il Policlinico.

Strophanthin in Pure Form.

The desire to standardize accurately potent heart tonics, such as digitalis, has led to the introduction of the term "frog-unit." This refers to the amount necessary to cause systolic rest within thirty minutes of the heart of rana temporaria, weighing 30 to 40 Gm. Since the various preparations are not, however, absorbed equally fast from the lymph-sacs of the frog, it is a much better plan to employ principles known to be chemically pure. Strophanthin has latterly been employed for intravenous use, where quick action is desired.

Most specimens of this glucoside are impure and amorphous, but recently Thoms has succeeded in isolating the principle in pure, crystalline form from the seeds of Strophanthus gratus. This gratus-strophanthin Thoms, manufactured by Merck, was employed in 32 patients by P. Fleischmann and H. Wjasmensky. The dose given for strophanthin is usually ¾ to 1 Mgm.; but with the pure, crystalline preparation no more than ½ Mgm. should be injected. The results of an injection are very evident: Very soon the pulse will slow, the pulse amplitude rise, and within three hours diuresis begins. The lowest pulse-rate is noticed between six to eight minutes up to several hours after the injection. The duration of action varies with the ease; sometimes it is also desirable to give digitalis or other heart tonics. The best results are always seen in cardiac decompensation; less effect is evident in pneumonia, scarlet, and other infections, while the tarchycardia of phthisis, carcinoma, etc., is usually not reduced. In one case of Basedow's disease the pulse even increased in frequency. Untoward effects are seen very rarely, but the dose should not be too high in cachexia. Cumulative effects should be guarded against, particularly if the patient has been taking digitalis.—Deutsch. med. Woch.

Ethylmorphine Iodide in Ophthalmology

Dionin, which is ethylmorphine hydrochloride, has earned a well-established place in ophthalmology, and quite recently the corresponding iodide has been recommended for various eye diseases. F. R. v. Arlt finds that it is less painful to the eye, but does not dissolve quite as readily as dionin. The presence of salt in the tears is important, for almost all drugs used by the eye-surgeon dissolve more readily in a salt solution than in water. If dionin be introduced into the eye with some salt, the pain will be less marked than with dionin alone. As far as therapeutic activity is concerned, the iodide is said to be equally as valuable as dionin, and is perhaps to be preferred for children.—Therap, u. Hygiene.

Dyspepsia in Malarial Subjects.

V. Raymond and L. Salignat have had under treatment at Vichy many cases of chronic malaria contracted in tropical countries, in which they have found chronic dyspepsia to exist. In thirty of these cases they have made accurate determinations of the stomach contents and gastric chemistry. They found that in 53 per cent. there was hyperchlorhydia, in 33 per cent. normal chemism, and in 13 per cent. hypochlorhydria. These troubles are found in recent as well as chronic cases of malarial poisoning, and are the results of various stages of the disease. The liver and spleen are also

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affected. There is hypertension and then hypotension of the portal circulation, and relaxation of the suspensory ligaments of liver and spleen. All sorts of symptoms are presented in gastric dyspepsia of malarial origin. In the beginning there is excitation of sensibility of the stomach, of secretion, and of motility. Later succeeds a period of depression, with dimunition of secretion. Later succeeds a period of depression, with diminution of secretion. In most cases there is more or less pronounced anemia. Treatment should include the use of quinine and hydrotherapeutic measures —Rivue de Medecine.

Histological Observations In Human Osteomalacia.

Gino Baggio has examined histologically the bones of four victims of osteomalacia, one man, and two women who died of intercurrent affections in advanced life. There were found only islands of calcified bone substance. The osseous trabeculæ were traversed by canals filled with fibrous substance rich in vessels. There were three types of medulla, lymphoid, fibrous, and fatty; of these the fibrous predominated. The bone corpuscles found in the ossified portions showed elongation toward the periphery of the islands, their shape being preserved only at the center. In the uncalcified portions the structure consisted of fibrous tissue in large parallel bundles. The corpuscles in the osteoid zones were large and with dilated, short prolongations. When the process of osteomalacic alteration is in progress the limits between soteoid and calcffiod tissues are changed continally by a dissolving of the calcerous salts produced by the same cells which formed it.—Archivio per le Science Mediche.

Landry's Paralysis.

C. H. Cattle recently reported a case of Landry's paralysis. The patient was a colliery banksman, aged twenty-three, and had taken alcohol to excess, as well as sat in wet clothes a week previous to the onset of the disease. This began with muscular pains, then he turned cold, sick, and dizzy, and complained of numbness at the tips of the fingers of both hands. The arms were next affected, and after them the legs and trunk. Then the eyelids and mouth muscles became weak; there was a little headache and a slight cough. The pupils were normal and the temperature practically normal throughout. The muscles were found to be weak or paralyzed in whole groups, though not wasted. There was no reaction of degeneration, the reflexes were abolished, but everywhere sensation was normal. The muscles were extremely tender when grasped, and passive movements of the limbs were very painful. The bladder and rectum were not affected, and no bedsores occurred, although he was in bed continuously for six months. For a time the intercostal muscles were entirely paralyzed, so that there was imminent danger of respiratory failure.

Treatment resolved itself into strychnine and belladonna internally, and then strychnine alternately with sodium salicylate. Eventually he recovered sufficiently to be moved to an infirmary, where he could get about pretty comfortably with the aid of a wheeled chair.—British Med. Jour.

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A Convenient Chloroform Package.

Much interest is being manifested in the chloroform dropper-ampoule marketed by Parke, Davis & Co., and which, in the opinion of a good many physicians and surgeons, is the most convenient and practical chloroform package that has ever been introduced to the profession. The new device is at once a hermetically sealed container and a perfect dropping-bottle that can be carried about in the emergency bag at all times in readiness for immediate use. It supplies in portable form enough of the anesthetic for one service—about thirty grammes. The desirability of such an individual package and its superiority over the ordinary amber, cork-stoppered bottle heretofore supplied is appreciated when one remembers that chloroform in broken packages rapidly deteriorates under the influence of air and light and becomes contaminated with chlorine decomposition products.

The dropper-ampoule is, furthermore, a very economical package, as loss by evaporation, spilling of contents, and deterioration are practically eliminated. The chloroform may be dropped directly upon the mask with ease and accuracy. The anesthetist has perfect control of the outflow and is enabled to regulate at his discretion the intervals between drops.

Physicians desiring further information relative to the dropper-ampoule are advised to write to Parke, Davis & Co. for their illustrated circular descriptive of the new package, addressing them either at their main laboratories, Detroit, Mich., or any of their branches.

Antipyretic, Analgesic and Antiseptic Powder.

In speaking of the treatment of articular rheumatism, Hobart A. Hare, M. D., Professor of Therapeutics in the Jefferson Medical College and Editor of *The Therapeutic Gazette*, says: "Any substance possessing strong antipyretic power must be of value under such circumstances." He further notes that the analgesic power of the coal-tar products "must exert a powerful influence for good." The lowering of the fever, no doubt, quiets the system and removes the delirium which accompanies the hyperpyrexia, while freedom from pain saves an immense amount of wear, and places the patient in a better condition for recovery. The researches of Guttmann show conclusively that these products possess a direct anti-rheumatic influence, and among those remedies, antikamnia stands pre-eminent as an analgesic and antipyretic. Hare, in his *Practical Therapeutics*: says "Salol renders the intestinal canal antiseptic," a condition absolutely essential in the treatment of rheumatism. In short, the value of salol in rheumatic conditions is so well understood and appreciated that further comment is unnecessary. The statements of Professors Hare and Guttmann are so well known and to the point and have been verified so often, that the uses of "Antikamnia & Salol Tablets" are at once apparent. Each of these tablets contains two and one-half grains of antikamnia and two and one-half grains of salol. The proper proportion of the ingredients is evidenced by the popularity of the tablets in all rheumatic conditions.

The Action of Sanmetto in Gonorrhea.

The philosophy of the action of sanmetto in gonorrhea may be explained in this way: Sanmetto has no direct germicidal action in the treatment of membranous conditions due to the invasion of the gonococcus. It should be borne in mind that sanmetto does not directly destroy gonococci, Whatever may be its direct action upon these germs, it is certain that it does not have any such directly germicidal influence. What it probably does is to set up in the mucous membrane a reaction to the inflammation or a nutritive toning up of the parts, which brings to the parts a sufficient reinforcement of leucocytes to overwhlm the germs—the gonococci.

This view of the action of sanmetto explains the apparent aggravation which sometimes is set up in the treatment of chronic inflammation of the bladder and urethra, and a consequent sloughing off of shreds and purulent matter, causing the patient to think the sanmetto has made his case worse, but which really is but the smoke of the battle in which sanmetto is to be the victor and the gonococci the vanquished.

Kelene (Pure Chloride of Ethyl).

In pathological laboratory work, Dr.—— writes: "I have discarded altogether the use of CO_2 and ether as mediums for freezing specimens in making sections. I use the ordinary microtome and place a small section of the tissue to be examined on a block used for that purpose, which is placed in position for cutting in the microtome. I then throw a fine spray of Kelene (Ethyl Chloride) on the tissue, which is frozen in two seconds hard enough to get a beautiful section. The whole procedure does not take over two minutes and but a very small amount of Ethyl Chloride.

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The Earliest Symptom of Enlarged Prostate.

Increased urinary frequency, chiefly nocturnal in character, is the earliest and most frequently encountered symptom of enlarged prostate. Many cases of hypertrophied prostate might never develop beyond this point if sanmetto was administered as a prophylactic, and the discomfort of rising two or three times at night to urinate, to say nothing of entering upon a catheter life, might be avoided.

It is especially in the chronic prostatic hyperplasia which we find in old men, always associated with chronic vesical catarrh, that sanmetto gives the most brilliant results. Number of cases can be recited in which the use of sanmetto alone has not only relieved the vesical irritability, but has seemingly reduced the hypertrophy of the prostate and enabled the patient to dispense with catheterization and micturate unassisted for the first time in years.

Painstaking doctors whose experience and skill are recognized by the consulting medical specialist are frequently called upon to exercise judgment in the selection of antiseptics, whether for the treatment of inflammatory affections or for general use. It is therefore quite natural that under such circumstances they would be anxious to select a non-poisonous antiseptic, the use of which would reflect credit upon their experience and judgment. The recommendations of leading hospital practitioners based on the very highest clinical tests, form one of the best guides in such cases. In selecting Tyree's Antiseptic Powder, they will merit the commendation of both the physician and the patient, as the Tyree Powder is free from all the objections found in other antiseptics. Tyree's Powder has stood the most exhaustive clinical tests and is used and recommended by many of the leading physicians and hospitals of America and Europe. Exhaustive chemical and bacteriological analysis together with a box of Tyree's Powder will be mailed free of charge to any physician by the manufacturer, J. S. Tyree, Washington, D. C.

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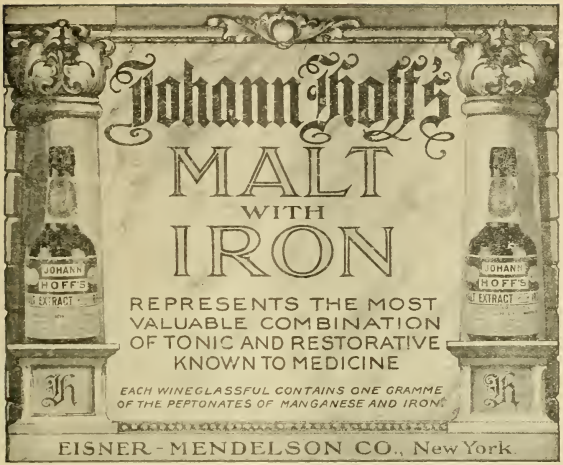
The Modern Treatment of Hay Fever.

Whatever be the accepted views as to the pathology and etiology of hay fever, there is little difference of opinion concerning its importanee and the severity of its symptoms. An agent that is capable of controlling the catarrhal inflammation, allaying the violent paroxysms of sneezing and the abundant lacrimation, cutting short the asthmatic attack when it becomes a part of the clinical ensemble, and. finally, sustaining the heart and thus preventing the great depression that usuatly accompanies or follows the attack—in short, an agent that is capable of meeting the principal indications—must prove invaluable in the treatment of this by no means tractable disease.

In the opinion of many physicians, the most serviceable agent is Adrenalin. While not a specific in the strict meaning of the word, Adrenalin meets the condition very effectually and secures for the patient a positive degree of comfort. It controls catarrhal inflammations as perhaps no other astringent can. It allays violent paroxysms of sneezing and profuse lacrimation by blanching the turbinal tissues and soothing the irritation of the nasal mucosa which gives rise to those symptoms. It reduces the severity of the asthmatic seizure, in many instances affording complete and lasting relief.

There are four forms in which Adrenalin is very successfully used in the treatment of hay fever: Solution Adrenalin Chloride, Adrenalin Inhalant, Adrenalin Ointment, and Adrenalin and Chloretone Ointment. The solution, first mentioned, should be diluted with four to ten times its volume of physiological salt solution and sprayed into the nares and pharynx. The inhalant is used in the same manner, except that it requires no dilution. The ointments are supplied in collapsible tubes with elongated nozzles, which render administration very simple and easy.

It is perhaps pertinent to mention in this connection that Messrs. Parke, Davis & Co. have issued a very useful booklet on the sabject of hay fever, containing practical chapters on the disease, indications for treat-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ment, preventive measures, etc. Physicians will do well to write for this pamphlet, addressing the company at its home offices in Detroit or any of its numerous branches.

Treatment of Gonorrhea.

Hand injections are not popular in France, and most cases of gonorrhea are treated either according to the method of Fournier or Janet. The former simply gives bicarbonate of soda with flaxseed tea during the acute stage, and has the organ washed off frequently, or applies a wet dressing. After about fourteen days a small amount of copaiba or cubebs is prescribed.

The more popular method of Janet calls for irrigations of the entire urethra by means of a weak solution of potassium permanganate. Though the gonococci are directly carried into the posterior urethra, a urethritis is a very rare complication here. During the acute stage, when the secretion is purulent, oxycyanate of mercury, 1:4000, or albargin, 1:1000, is superior to the permanganate. The abortive treatment is only rarely employed. The following is an excellent method, if the discharge has not persisted for more than three days and is more sero-mucinous in character: The first day, a few cubic centimeters of a 1 to 2 per cent. solution of silver nitrate are instilled into the anterior urethra; a few hours later, the anterior urethra is irrigated with a 1:2000 permanganate solution. This is repeated on the second day, and on the second sitting of the same day a 0.5 per cent. cocaine solution is injected, and the irrigation repeated into the bladder. Two irrigations daily are given for five to six days, then one irrigation daily. The strength of the permanganate is later diminished to 1:4000. Complications are rare, and a cure generally sets in from two to four weeks. Where there are no gonococci, but a pronounced mixed infection, some prefer bichloride, 1:20,000. In chronic gonorrhea, all the glands must be carefully examined, especially by palpation and massage. The treatment consists in massage and irrigations of permanganate, 1:3000. For involvement of the anterior glands, massage may also be practiced, or the glands are emptied by means of a Kollman dilator. For infiltrations in the anterior canal, sounds are in place, or electricity is recommended, while softening ointments or injections are only rarely employed.—Muench. med. Woch.

Epsom Salts in the Treatment of Warts.

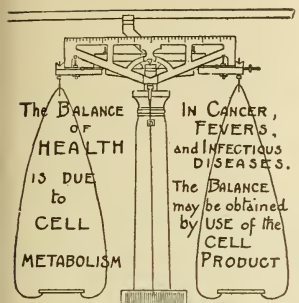
J. B. Ridley recently had under observation two cases of verruca plana of the hands and face, one of which has been successfully treated by Epsom salts. The first case was that of a girl, aged twenty years, who presented herself at the skin hospital on Feb. 3 of this year suffering from warts of six years' duration. Upon inspection the dorsal surface of both hands was covered with warts of considerable size, while in addition there were a few scattered ones on the neck and around the mouth. She was put on Epsom salts in dram doses thrice daily, no external application was given, and by March 24 the warts had entirely disappeared.

The second case was a little boy, aged four years, seen on April 21, suffering from warts of seven months' duration. The dorsal surface of both hands was much affected with them and a few were also to be seen about the mouth. He was treated with Epsom salts in dram doses twice daily, but as he had only been under treatment for a short period there was no marked effect at the time of the report, but the author had no hesitation in saying that in the course of a few weeks more they will have entirely disappeared.

Some fifteen years ago he treated a little girl, aged ten years, for extensive warts of the face and body. He gave her Epsom salts in dram doses twice daily for over three months; at the end of this time the whole of the warts had entirely vanished. None of these cases ever complained of any unpleasant symptoms.—The London Medical Lancet.

Typhoid Bacilli in Sputum.

Lung complications of severity during typhoid fever are not very common; nevertheless they occur with sufficient frequency to make them of decided clinical importance. Their bacteriology has been investigated by Dr. Stefanelli, in Florence, and he finds that out of fifteen patients suffering from typhoid fever and from intercurrent lung trouble, as follows:—Severe diffuse bronchitis, 2 cases; broncho-pneumonia, 10 cases; lobar pneumonia, 3 cases, the sputum contained the *Diplococcus pneumoniæ* in every instance, and the *Bacillus typhosus* in six out of the fifteen. The importance of this from the point of view of the spread of the disease is obvious—it must be dangerous to have a case of typhoidal pneumonia coughing in proximity to another patient's bed. It is also of importance from the point of view of treatment; for the vaccine treatment of pneumonia requires a precise knowledge of the bacteriology of the lung trouble in each individual case. It is hardly possible, if both pneumococci and typhoid bacilli are present in the same sputum, to say for certain which is causing the bronchitis or the pneumonia; but the diplococcus is very common as an ingredient of normal sputum,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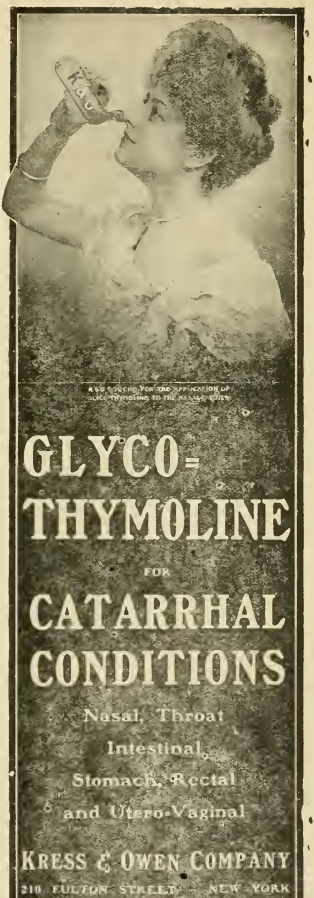

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whereas the typhoid bacillus is not likely to be adventitious. The point needs further investigation, but it seems likely that in a case where sputum contains both pneumococci and typhoid bacilli, the latter are the cause of the lung trouble, and a pneumococcal vaccine would be unlikely to do much good.—The Journal of Clinical Research.

State Board Examination Questions of the Illinois State Board of Examiners.

ANATOMY.

1. What are the Graafian follicles? What is the discus proligerus?

2. With what bones does the inferior turbinate bone articulate?

3. Give origin, insertion, action, and nerve supply of the brachialis anticus muscle.

4. What is the commeucement of the innominate artery? What is its length? Where and into what does it bifurcate?

5. In the adult, which is the smallest and which is the largest branch of the celiac axis artery?

6. In "Pott's fracture" you will find the foot everted. What muscle produces the eversion?

7. Name the openings in the diaphragm. What nerves supply the diaphragm?

8. How many pairs of cranial, and how many pairs of spinal nerves are there?

9. Briefly describe the ventricles of the brain.

10. Name the muscles attached to the lower end of the femur.

PHYSIOLOGY.

1. Discuss sleep.

2. Trace the blood from the time it enters the heart from the veua cava until it leaves by the aorta.

3. Define reflex action. Describe a reflex arc.

4. Name the important centers in the medulla.

5. How would digestion be affected by obstruction of the ductus choledochus communis?

6. Explain why the gastric mucous membrane is not digested by the gastric juice. Give the constituents of gastric juice.

7. Describe the disturbances of function of the digestive system produced by excessive use of alcohol.

NEUROLOGY.

1. Give diagnosis and treatment of chorea.

2. From what artery is cerebral hemorrhage most likely to occur?

3. Give differential diagnosis between the coma of opium poisoning and that from zerebral hemorrhage.

MATERIA MEDICA AFD THERAPEUTICS.

1. Write a prescription for an alterative, and give indications for its use.

2. Write a prescription for a cardiac stimulant and another for a cardiac depressant, and give the indications and dangers of each.

3. Name the preparations, therapeutic indications, doses, and dangers of belladonna.

4. To what class of remedies does nux vomica belong? Give preparations, doses, therapeutic indications, and dangers.

5. Define antiperiodic, and give example with dose and indications for ure.

6. Name one or more internal antiseptics, and give dose, mode of action, and uses.

7. Define antipyretic, and give two examples, with dose, mode of action, and uses of each.

8. Define diuretic. Give two examples. Explain the physiological action of one, with indications for use.

9. Define oxytocic. Give ezample with dose and use.

10. Name one diaphoretic, and give physiological action in detail.

CHEMISTRY.

1. Describe a process for the manufacture of sodium carbonate or *soda*, as commonly called.

2. What do the following formulæ represent?

KNO_2; K_2CrO_4; $K_2Cr_2O_7$; $KMnO_4$; HCN.

3. Complete the following equation. Give name of compounds and resultant compounds:

$$NaNO_2 + H_2SO_4 =$$

4. Describe chloroform, giving its formula and the preparation on the large scale.

5. Briefly discuss chemical action in general.

ETIOLOGY AND HYGIENE.

1. Give etiology of neurasthenia.

2. Give etiology of mitral incompetency.

3. Give etiology of angina pectoris.

4. Discuss the prophylaxis of malarial fever.

5: How are impurities in water classified? How can they be detected, and why is the presence of organic material in drinking water considered deleterious?

PHYSICAL DIAGNOSIS.

1. Give the etiology, pathology, and symptoms of spastic paraplegia.

2. Differentiate incipient phthisis from bronchitis.

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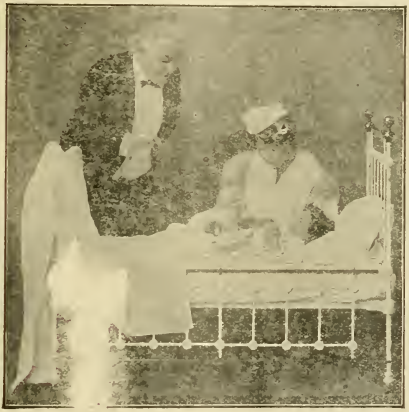

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3. Give the etiology, symptoms, and pathology of tabes dorsalis.

4. Give the etiology, pathology, and symptoms of edema of the glottis.

5. Differentiate between herpes goster and prurigo.

OPHTHALMOLOGY AND OTOLOGY.

1. Give treatment of chronic otitis media.

2. Give the symptoms, etiology, and treatment of optic neuritis.

3. Give your treatment of contused wounds of the eyeball.

PEDIATRICS.

1. Give the dose of the following drugs for an infant three months old: tinct. aconite, phenacetin, strychnine, morphine, antifebrin, quinine.

2. Give the symptoms and treatment of diphtheria.

PATHOLOGY.

1. Give a description of progressive muscular atrophy, with its pathology.

2. What pathological changes take place in urinary stricture from a prostatic enlargement?

3. What tissue changes characterize interstitial nephritis?

4. Define the term general anasarca. and give the pathology of the leison which most frequently gives rise to it.

5. Discuss the pathology of cirrhosis of the liver.

BACTERIOLOGY.

1. Give a method for staining the gonococci. How do they appear under the microscope?

2. Describe and give characteristics of bacteria especially connected with pneumonia.

3. What is the method of staining the bacillus of tuberculosis?

4. Describe the comma bacillus, and give manner of its introduction into the system.

5. Describe the microorganism associated with malarial fever.

PRACTICE.

1. Should you be called to attend a case of diphtheria. and find that other children in the family have been thoroughly exposed, state fully what you would do for the patient, the other children, and to protect the public.

2. Suppose you are called to see a case of valvular disease of the heart with broken compensation, what would you do, what would you give, and why?

3. Give the etiology, symptoms, and treatment of peripheral neuritis.

4. Outline the management and treatment of chronic constipation.

5. Give the etiology, symptoms and treatment of cystitis.

6. Give the symptoms, diagnosis, and treatment of hyperchlorhydria.

7. Give the etiology, symptoms and signs, and treatment of lobar pneumonia.

8. Give the diagnosis and treatment of chronic nephritis, late stage.

9. Give the cause. symptoms, and treatment of ascites.

10. Give the treatment of chronic furunculosis.

OBSTETRICS.

1. Describe the chief differences between the female pelvis and the male pelvis.

2. Give the various diameters of the inlet and outlet of the pelvis.

3. Give a full description of the uterus.

4. Describe the treatment of a lacerated perineum. When would you institute the treatment?

5. What changes take place in the ovum after fecundation?

6. Describe the placental circulation.

7. Discuss the management of brow presentations.

8. Discuss briefly dystocia due to the fœtus.

9. What is the uteroplacental souffle? What is the funic souffle?

10. Describe in detail the contents of a well equipped obstetric bag.

SURGERY.

1. Describe and give the varieties of pus. What are the symptoms of suppuration?

2. Describe traumatic gangrene, and give treatment of same.

3. Give the means and agents for the production of local anesthesia?

4. Give the symptoms, diagnosis, and treatment of intracapsular fracture of the femur.

5. Give the symptoms of strangulated inguinal hernia. Describe in detail herniotomy by the method you prefer,

6. Describe the sutures most commonly used, giving the preparation.

7. Enumerate the symptoms of cerebral compression, and outline proper treatment,

8. Give the etiology and symptoms of cystitis of the urinary bladder.

9, Describe the affections of the skin due to syphilis.

10. Give the etiology of aneurysm.

GYNECOLOGY.

1. What is vicarious menstruation.

2. How may vaginisms be recognized, and what is the treatment?

3. Discuss the treatment of tumors of the mammary glands.

4. Describe fully the two varieties of ovaritis.

5. Give the etiology and treatment of an acute general cystitis.

6. Discuss the advantages and disadvantages of the vagina as compared with the abdominal routes in surgical operations.

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LARYNGOLOGY AND RHINOLOGY.

1. Give the appearance and effects of the destructive action of syphilis on the larynx.
2. Give the pathology of acute rhinitis.

MEDICAL JURISPRUDENCE.

1. What post-mortem changes occur in the tissues.
2. Describe rigor mortis.

Sajodin in the Treatment in Syphilis.

Benassi (Gazz. degli. Osped.) has been testing the value of sajodin in the treatment of secondary and tertiary syphilitic leisons. It was tried in about fifty cases, but it was only possible to watch the effect for any length of time in twenty-two cases (eight tertiary and fourteen secondary). The drug is a compound of iodine (24.5 per cent.) and calcium (4.1 per cent.). It is an absolutely odorless and tasteless powder, and insoluble in water. The usual dose is 1 gm., given in a cachet. The author found sajodin a good substitute for potassium iodide and the alkaline iodides. It acts quite as well, and in some cases even better, than iodide of potassium, and can be tolerated in larger doses; no iodism was observed even in patients suffering from gastric disorder and under large doses. It may be used where one usually prescribes the iodide. It is best tolerated when given at or just after a meal.—British Medical Journal.

Advisability of Lactation During Acute Illnesses of the Mother.

G. Guidi, from an experience of thirty years in practice, together with experiments on animals, gives it as his conblusion that in many acute diseases of the mother it is advisable to continue lactation. Stopping it injures mother and child. The patient should be carefully watched, fed so as to give the necessary amount of nutritive material, and kept under the best possible hygienic conditions. As to the danger of infection of the child, it is slight. Either the milk has antitoxic properties, or the child is capable of producing antitoxic substances that protect it against the disease. The passage of bacteria into the milk does not produce infection of the infant. The child could not be kept in the room with the mother except when being dursed. Clinical observation and experimental study agree in showing that the germs not infect the child.—Rivista di Clinica Pediatrica.

Acute Peritonitis Preceding Labor.

G. Leopold, (Dresden), reports a fatal case, rather rare, but yet instructive since it displays the possibility of a fatal termination from infection before labor. A pregnant woman was admitted to the clinic two days after having had the first child. This was followed by severe abdominal pain, tympanitis, and vomiting; temperature 103.2 pulse 120; vaginitis; condylomata; acrid leucorrhœa. Labor was induced by rupturing the membranes, and at this time the amniotic fluid was found to be greenish yellow, but the delivery was spontaneous and easy. A few hours after delivery the woman died. The section revealed peritonitis combined with right sided parametritis, fibrinous pleuritis and septic spleen. In the uterine wall a diffuse phlegmon was found extending into the right parametrium. Streptococci abundant. In commenting upon the case the author calls attention to the great likelihood of gonorrhœal infection in the last weeks of pregnancy; the existence of a parametric abscess even before labor with intact membranes and closed cervix; the rapid occurrence of peritonitis from the parametritis; the rapid delivery although the uterus and its vessels were diffusely invaded with streptococci. The case also exemplifies the occurrence of infection before labor ot cases dying within a day or two after delivery.—Zentralbl. f. Gyn.

Diabetes Insipidus.

Engel reports some careful observations on cases of genuine diabetes insipidus and polyuria from other causes, designed to demonstrate the theory of Tallquist, Meyer and others, that the primary symptom in this disease is a polyuria, dependent on a characteristic disturbance of water metabolism, which may be called a loss of the power of concentration on the part of the kiddey—an inability to secrete any but a very dilute urine. In such a condition water would be withdrawn from the tissues in proportion to the urinary solids to be excreted and irrespective of the water intake, and thirst and polydypsia would be secondary. The urine would vary in amount in close proportion to the intake of solids to be excreted by the kidneys, and the concentration would be nearly constant. In polyuria from other causes, the amount of urine varies quite directly with the water intake and is largely independent of the amount of solids, so that variations in quantity are usually less marked, while the concentration shows wide fluctuations.

Seven cases are described—four of diabetes insipidus, and three of polyuria from other causes. In all of them careful records were made of quantity and concentration of urine under different experimental conditions—varying diets, administration of such salts as sodium chlorid, withholding water, etc. Concentration was determined by the lowering of the freezing point.

The four cases of diabetes insipidus gav

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results corresponding in every way to the theory. There were wide variations in quantity of urine, but the concentration changed little, and was always much below normal. Giving salt and withholding water caused extreme discomfort, soon becoming unbearable; the refractive index of the blood was much increased, but the urine concentration was practically unchanged. In the other group of cases there was no sign of constancy of urine concentration, and the patients could nearly always voluntarily refrain from drinking to the point where the concentration was practically normal. Moreover, drugs which ordinarily diminish the water diuresis or increase the molecular diuresis had little or no effect in the diabetes cases, while on the other hand after a single ingestion of a large amount of water the resulting dilution of the urine was less than normal, and appeared later. That the inability of the kidneys to excrete concentrated urine was not absolute was demonstrated in one case by the elimination of urine of normal concentration during an intercurrent fever, and in two others by a moderate increase in concentration after prolonged withholding of water or administration of salt. Drugs, such as strychnin, atropin, and antipyrin were found useless in these cases.

The etiology of the condition is still obscure. Autopsies have demonstrated the absence of anatomical changes in the kidney. The ordinary cause of polyuria—namely, hydremia resulting from excessive drinking, does not exist here, as the polyuria is primary and hydremia does not occur, the blood being, on the contrary, neorly always concentrated. Engel inclines to the theory that the polyuria is the result of a continual nervous stimulus originating in the cord and acting upon the kidney, and cites cases of disease of brain or cord in which precisely similar symptoms have been observed.—Zeitschr. f. Klin. Med.

Effect of the "Yoghurt" Bacillus on B. Coli.

Von Kern reviews the literature regarding the lactic acid bacilli as intestinal antiseptics or stimulants to digestion. It is generally admitted, and apparently proved experimentally, that certain animals thrive better under the administration of sour milk, and that the constituents of the urine resulting from intestinal putrefaction are distinctly diminished.

There are three main theories as to the reason for this. Metchnikoff and his school ascribe the results observed to a direct inhibiting action of the living lactic acid organisms, especially the "Yoghurt" bacillus (B. Bulgarus) and B. Paralacticus, upon the growth of the B. Coli. Others believe that lactic acid and its salts and possibly some other products of the lactic acid bacilli, have this action, even after the germs have been killed by heat; while a third group believes that the effects are due wholly to the stimulus given to the digestive processes by the acid milk. Von Kern's experiments were directed to the question whether the B. Bulgarus has any real inhibiting action on the growth of B. Coli, in vivo and in vitro. His experiments on the living person consisted in counting the colonies of B. Coli in a given amount of fecal matter with and without the administration of sour milk. He found them always much diminished in number under sour milk. In vitro, he tried the addition of the toxins of B. Bulgarus to cultures of B. Coli. In the first two cases the inhibiting action of B. Bulgaris was evident, but not very marked, while the effect of the toxins was very decided. He concludes that sour milk, especially when prepared with B. Bulgarus, the most active of the lactic acid group, is distinctly indicated in acute and chronic intestinal disturbances with fermentation, in diseases of the stomach with insufficient secretion, and the accompanying intestinal disorders, and especially the "achylic" diarrheas.—Zeitschr. f. Klin. Med.

Undialyzable Constituents of the Urine in Pregnant Women in Normal and Pathological Conditions.

M. Savare has examined the undialyzable residue of the urine, which is in considerable quantity in normal and pathological conditions in pregnant women, and has injected the residue into animals to ascertain whether it has toxic properties. He finds that there are contained in the urine of women who are in a pathological condition while pregnant, especially when attacked by eclampsia, elements that are markedly toxic to the experiment animals, causing them to have stupor and convulsions, and killing two out of ten animals injected. The relation to the causation of eclampsia of these toxic elements is not as yet clearly defined, but should be further studied, since it may prove a fruitful field of observation. —Annali di Ostetricia e Ginecologia.

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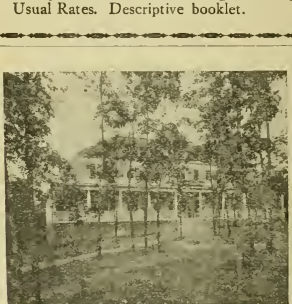

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. H. Clark, M. D., Sec., El Reno, Okla.
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Thos. D. Coleman. M. D., Pres., Augusta, Ga.

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Annual meeting at Summerville, S. C., April 21, 1909.
Walter Cheyne, M. D., Sec., Sumter, S. C.
S. C. Baker, M. D., Pres. Sumter, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.
Annual meeting at Nashville, Tenn., April. 13-15 1909.
Geo. H. Price, M. D., Sec., 146 8th. Ave., N., Nashville, Tenn.
B. D. Bosworth, M. D., Pres., Knoxville, Tenn.

MEDICAL SOCIETY OF VIRGINIA.
Annual meeting at Roanoke, Va., fall of 1909.
Landon B. Edwards, M. D., Sec., Richmond, Va.
Stuart McGuire, M D., Pres., Richmond. Va.

Late Researches in Diphtheria Therapy

Investigations by Fritz Meyer (*Berliner Klinische Wochenschrift*, June 28, 1909; editorial comment, *Medical Record*, July 31, 1909) on the effect of diphtheria toxin and antitoxin upon the heart, demonstrate:

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2. "If given later, but before the fall has occurred, it delays the onset; but
3. "If given after the pressure has once fallen, it is quite without effect."
4. "Antitoxin given early in sufficient dose prevents myocarditis after the injection of toxin in any amount."

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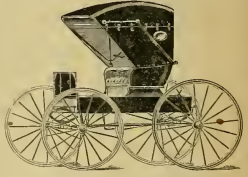

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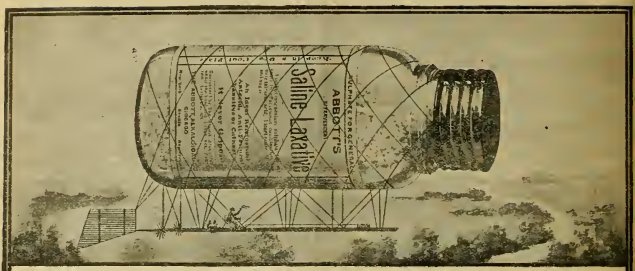

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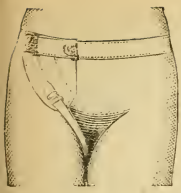

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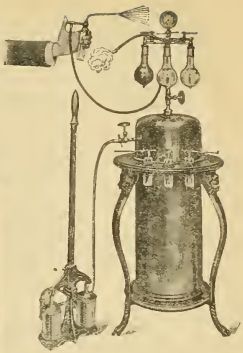

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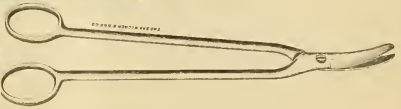

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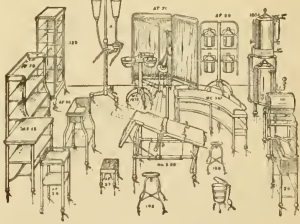

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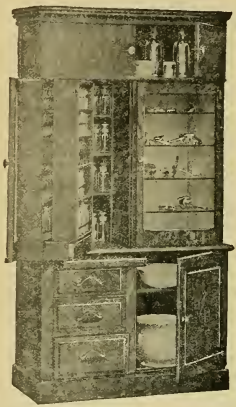

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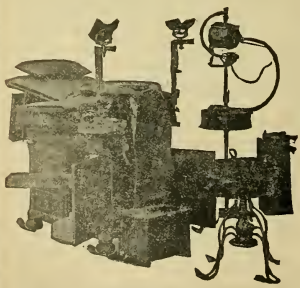

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The Charlotte Medical Journal

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A Plea for the Early and Thorough Removal of Tonsils and Adenoids in Children.*

By Dunbar Roy, M. D., Atlanta, Georgia.

1. Anatomical—Position and Structure.
2. Physiologic Function.
3. Pathologic Function.
4. Remote Effects (1) by Pathologic Involvement, (2) by Mechanical Obstruction.
5. Rational Treatment.

My only excuse for bringing a time-worn subject like this before our Medical Association is the fact of its importance to the specialist and general practitioner alike, and also that I wish to put myself on record as favoring an early operation for tonsils and adenoids, and this too only under a general anesthetic. In the last few years the deleterious effect of enlarged or diseased tonsils and adenoids upon the general constitution of the individual has been universally recognized, and its importance is increasing with every year of our medical advancement. It is impossible for me, in the limited time at my disposal, to go thoroughly into every detail of this subject, but I shall try as far as possible to present some important facts as a practical contribution to the subject in question.

The anatomical position and relationship of the faucial tonsils and adenoid tissure in the naso-pharynx is no doubt too familiar to need discussion, although I shall speak later on this point when discussing the obstructive influence of these structures to proper ventilation of the nose and ears. The lymphoid ring in the throat now has a definite meaning to nearly every physician, embracing as it does the circle of lymphoid tissue known as adenoid, faucial, and lingual tonsils. All of this ring of tissue is histologically the same, being what is known as lymphoid tissue. On account of the prominent position and ease of examination, the faucial tonsils have for a long time received more attention than did the adenoid tissue in the naso-pharynx and the lymphoid tissue at the base of the tongue. This, furthermore, was justifiable because the faucial tonsils do produce more systemic disturbances than possibly do the remainder of the lymphoid ring, and for this reason has received more attention from physiologists and workers in pathologic anatomy. The anatomic position of the faucial tonsils between the folds of the palato-glossus and palato-pharyngeal muscles is no doubt familiar to all, but there is an anatomic formation above each faucial tonsil, which in the last few years has received much attention on accounnt of its pathologic importance, in being probably the starting point for various infections in and about the tonsils, especially of peritonsillar abscesses.

Killian was one of the first men to call attention to this anatomic formation from the examination of 105 anatomic preparations and 100 living persons. He found that there exists immediately below the semiluna fold of mucous membrane, which covers the upper part of the tonsil in front, a depression or chinck. This is the opening into a relatively large cavity lying in the area of the tonsil which is concealed by the soft palate. Examination with a probe shows that this place has a mean depth of 1 cm. This same space was called by His the anatonist, the supra-tonsillar fossa and is almost universally called by that name today. This fossa may be prolonged downward in front of the tonsil or it may be stretched outward behind the palato-glossus muscle almost to the lower jaw. It is not a crypt of the tonsil but a space above this organ. Enough has been written to show that it has a distinct anatomical entity and possesses clinical significance. It may become the seat of suppuration which may drain in a very imperfect manner and in this way give rise to continuous throat irritation. Patterson has found pyogenic organisms in great abundance in this space and believes it is the point where the majority of tonsillar infections arise. My own observations correspond with this statement. In fact, Killian has given up the ordinary incision through the soft palate in cases of peritonsillar abscess and opens them through the supratonsillar fossa by means of a probe, introduced into the abscess by this route. The question as to the physiology and function of the faucial tonsils has not yet been settled, although a great deal of experimental work has been done in this direction. It is just for this very reason that so many diverse opinions exist as to the proper treatment of this lymphatic tissue both in the naso-pharynx but more especially the faucial tonsils.

The appearance of tonsils with their numerous crypts or lacunæ, is no doubt familiar to every physician who even occasionally examines a throat, but their function in the light of the present day knowledge, is still veiled in some obscurity. It is for this reason that I shall speak for a

*Read before the meeting of the Georgia Medical Association in Macon, Georgia, April 20, 21, 22, 1909.

moment on the present theories in regard to these organs. In 1907 E. Barth published in the Deutsch. Med. Woch. a very exhaustive article on this subject, and I shall take the liberty of quoting from the same as the most recent exhaustive contribution to the subject. Histologically the tonsils consist of adenoid tissue, the same structure as exists in the naso-pharynx and it must be concluded that their function is similar to the lymph glands. It is for this reason that they show a close resemblance to the Peyers' patches and solitary glands in the intestine.

The tonsils being placed in a superficial position at the level of the mucous membrane at the beginning of the air and food passages, have been shown to have a constant emigration of leucocytes on to the mucous membrane. The presence, however, of opening in the epithelium through which the lymphocytes might migrate, have not been entirely substantiated. One peculiarity about the tonsils is the presence of fissures and folds, crypts, and lacunæ.

The theory that the tonsils have some power to aid the digestion and absorption of carbohydrates, has not yet been established. Some clinical investigations by Lichtwitz and Sabrazes have shown an improvement in the condition of the blood after removal of hypertrophied tonsils. The theory of the protective action of the tonsils is opposed by the fact that they are especially liable to inflammation in consequence of infection and are often the source of a general infection. Barth says that inflammation of the tonsils is only in rare cases the result of an infection of the surface of the tonsil, but arise more frequently by a secondary infection which reaches them through the lymph channels. He illustrates them by referring to a tonsillitis which some times follows an operation in the nasal cavities, even after the most thorough asepsis, and this I have myself noted. The infection here arises not from the surface of the tonsil, but from the wound in the nose through lymph channels. It seems, therefore, that the tonsils have the power of excreting foreign substances which are brought to it by the lymph stream, besides having some secreting powers of their own. There is a great diversity of opinion among investigators as to the physiological and pathological function of the tonsil: At variance to some of the views above expressed, is the summary given by Hodenpyl at the close of his most exhaustive article published a few years ago on the physiological function of the tonsil. He says that his investigations lead him to conclude:

1. The tonsils are lymphoid structures closely resembling Peyers' patches of the small intestine.

2. None of the theories thus far advanced to explain the functions of the tonsils are conclusive.

3. The tonsils produce no physiologic secretion

4. The tonsils are not absorbing organs, contrary to the later views as expressed by Barth.

5. Tubercular tonsillitis is an uncommon condition.

6. There is no evidence to show that pulmonary tuberculosis ever results from absorption of the tubercle bacilli from the mouth through the tonsils.

7. Rarefaction of the epithelium of the tonsils affords a ready explanation of the way in which the contagion of diphtheria may gain entrance to the general circulation in this disease.

Goodale of Boston, and Kayser of Breslau, both have experimented and shown that the absorptive power of the tonsils is very limited. Although a study of these physiologic experiments shows many conflicting statements as to the function of the tonsils, in fact leaving it an open question as to whether or not they have any special function, the fact is nevertheless true that clinical observation has shown many relationships existing between diseases of the tonsils and other pathologic conditions of the human body. Many clinical observers have reported authentic cases where varied diseased conditions of the body had their origin through the portals of the tonsils and adenoid tissue in the naso-pharynx. Tonsils which give rise to these various systemic conditions, or at least apparently so, are seemingly just as active whether normal or abnormal in their appearance. Certainly the large flabby tonsil with numerous large secreting lacunæ, or even the small friable and degenerated tonsil, would be looked upon more as the starting point of various systemic affection than those of a more healthful appearance.

The importance of the faucial tonsils and adenoid tissue in the naso-pharynx as the gate of infection for chronic tubercular disease, has excited marked attention during the last few years. While the results of the various investigators in the field differ as to the frequency of various forms of systemic tubercular trouble originating through this source, the possibility of such an occurrence must certainly be considered. Clinical facts cannot always be substantiated by laboratory investigations and for this reason we must consider both sides of the question. During the last few years, laryngologists especially have noted the relationship between the enlarged glands of the neck and

a diseased faucial tonsil, and the brilliant results obtained in the complete disappearance of these glandular enlargements after the thorough removal of the tonsils, cannot but impress upon all the relationship of cause and effect. The question as to what are enlarged and diseased tonsils will probably never be settled as long as there remains so many different ideas on this subject among physicians. Lennox Browne says that all tonsils which project beyond the faucial pillows and many of those which do not, are foreign bodies in the throat and should be removed. This probably is extreme, and yet in my own mind I think Browne is nearly correct. Logan Turner says that the presence of enlarged cervical glands should make the removal of hypertrophied tonsils imperative. G. B. Wood has done considerable experimental work along this line and he concludes that the tubercle bacilli not only produce a tuberculous condition of the tonsil itself, but that they pass through the structure into the lymphatics. According to this observer "the lymphatic drainage of the faucial tonsils runs directly to the upper deep cervical glands, and these glands by a rich system of anastomosis, are connected by afferents and efferents with practically all the lymph glands of the neck and head. The tonsillar lymph gland just below posterior belly of the digastric muscle where it crosses the anterior border of the sterno-cleido mastoid. Topographically this spot is located just behind and below the angle of the jaw." According to this observer, nearly all tubercular adenitis of the neck have their origin through the tonsils.

Strassman, Deniochowski, Kruckmann and others, have demonstrated the existence of tubercle in the faucial tonsils, and their observations have been confirmed. Hugh Walsham has examined the faucial tonsils removed postmortem from 34 cases of tuberculosis and found them tubercular in 20. In his examination of tonsils removed from living persons his result was negative. Gourc examined 201 cases both microscopically and by inoculation, and he also could find no trace of tubercle. On the other hand, a most positive result has been found by other observers. Pillet found evidences of tubercle in 7, 5% in naso-pharyngeal adenoids. Lemoyez has published two cases where the adenoid tissue removed was almost entirely tubercular. Dieulafoy, after inoculating guinea pigs with portions of adenoid tissue from 35 patients, obtained tubercle in 20%, and histological examination by the same observer revealed evidence of tubercle in 5, 7%. Brindel obtained positive evidence in 12.5%, and Gottstein in 12%. Positive evidence of a tubercular nature have also been obtained by McBride and Turner of Edinburgh, Milligen of Manchester, and Brieger of Germany.

An interesting observation was that of Riethi, who found tubercle bacilli in six out of a hundred hypertrophied tonsils removed from persons showing no signs of tuberculosis. He believes that all hypertrophied tonsils should be removed as early as possible. Goodale of Boston, who has done more experimental work on the faucial tonsils and naso-pharyngeal adenoids than perhaps any other one man in this country, besides being an exceedingly capable and conservative laryngologist, sums up what would probably be accepted by most laryngologists as the present status of this uncertain question. He does not believe that a cervical adenitis of tuberculous nature can be removed by the removal of the tonsil, because the tubercle bacilli have already penetrated into the lymph glands. What should be done under these circumstances is to prevent further penetration of more bacilli into the lymph glands by extirpation of the tonsils and adenoids. In many instances there is enlargement of the glands of a non-tuberculous nature in which removal of the tonsils brings a relief to the glands.

Briefly summarized, it may be stated that primary tuberculosis of the tonsils and adenoid tissne in the naso-pharynx is rare, but as portals for the entrance of the tubercle bacilli into the general system, especially into the cervical lymphatic glands, is a question which as yet remains unsettled. Cases pro and con have been reported which would lead us to believe that the tonsils play no unimportant role in general systemic tuberculosis. During the last few years much has been written in reference to the relationship between rheumatism and faucial tonsils. Such a relationship is all most universally recognized, a fact which shows that the internist and the laryngologist must work together. Such accurate clinical observers as Osler, Thayer, Solis-Cohen recognize this relationship and many cases have been reported where the removal of the diseased and degenerated tonsils have absolutely cured rheumatic conditions of the severest character. Ingalls says that he is compelled to recognize the relationship existing between the two diseases, since in examining the redords of 100 cases of tonsillitis without selection, he found that 45% had, were having, or had immediately following, an attack of rheumatism. Melville Hardie thus summarizes the present status as to our knowledge of the relationship between rheumatism and tonsillar affections, and from my own knowledge

of the literature on this subject, I think his deductions are quite correct:

1. It is undoubted that a certain number of cases of acute rheumatism are preceded by angina, the proportion varying from 30 to 80 per cent.

2. Both rheumatism and angina have many etiologic points in common, season of the year, cold, wet, fatigue, depression, vitiated air.

3. The connection of angina and rheumatism, though undoubted in a number of cases, is not yet clearly explained.

4. The tonsil may be the port of entry of the rheumatism virus, and this even through the naked eye appearance of the throat gives no indication of its being affected.

5. The particular affection of the throat which is associated with rheumatism has not yet been established. Apparently it is not peritonsillar abscess.

6. Peritonsillar inflammation does not seem to be arrested by the admiuistration of anti-rheumatic remedies. Many cases of parenchymatous and lacunæ tonsillitis on the other hand are considerably benefited by the administration of salicine or the salicylate of soda. That this action proves the rheumatic nature of the disease cannot yet be accepted.

7. The question requires research in two directions: One is the differentiation of the various forms of angina, and ascertaining which one is associated with rheumatism; the other in further research to discover the true nature of rheumatism.

Besides tuberculosis and rheumatism, which seem to bear some decided relationship to the tonsillar structure, other conditions have been reported which also show some similarity. For instance, numerous cases have been reported where a diseased condition of the tonsil has either produced a septic infection or has been the gateway for the entrance of such septic organisms.

Froelich has reported an interesting case in which a severe attack of follicular tonsillitis was followed by peritonitis and death.

Jessen of Hamburg, has reported three very interesting cases where the general history of the cases and bacteriological examination showed almost with certainty that the infection entered the body through the tonsils. W. Lubinski records four cases where there was an acute inflammation of the thyroid gland following an acute tonsillitis, and has been able to find only one other case similar to these and this one by Quervain.

H. Weber has found two cases where an angina tonsillitis was followed by appendicitis. The author's explanation of this association is, that the irritant reaches the appendix from the throat through the digestive tract and he further observes that the micro-organisms which especially excite appendicitis, viz.: the influenza bacillus, and the streptococci, are frequently the cause of angina. This is certainly an interesting observation, and I trust that physicians and surgeons will bear in mind the possibility of such a relationship and that all such authentic cases may be reported. I have myself known of several cases where the removal of an appendix has been followed by a cessation in attacks of tonsillitis which previously had been quite frequent.

As a resume of these important points I can do no better than to give the conclusions of Uhlman published in 1901. These are:

1. That the normal tonsil has a physiologic function, probably protective to the organism. (This is true if we knew what was the normal tonsil) but unfortunately this is far from being decided.

2. That being in itself diseased, the physiologic function of the tonsil is impaired, and that instead of being protective it is the nidus for the growth and distribution of pathogenic organisms and their poisonous products in the system.

3. That many grave and fatal general infections have their origin in the tonsils.

4. That if the exanthemata, particularly scarlatina, are of bacterial origin the tonsil acts in part as a port of entry.

5. That acute articular rheumatism and the diseases often associated with it, endocarditis and chorea in a great majority of cases are due to the action of attenuated bacteria, their toxins or both entering the system through a diseased tonsil.

6. That in those rare cases of typhoid fever in which no intestinal lesions can be demonstrated the similarity of the tonsillar tissue and Pyers' patches suggest the tonsil as the portal of entry of the Eberth bacillus.

7. That scrofulosis is often associated with diseased tonsillar tissue and that the tubercle baccillus often enters the system via the tonsils.

8. That the tonsil is too little examined at autopsy and as much light might be shed on fevers of uncertain origin by its bacteriologic and histologic examination.

It is unnecessary to speak of the relationship existing between the lymph tissue in the throat and the acute infectious diseases, such as measles, scarlet fever and diphtheria. The first symptoms of these diseases as manifested by some form of amygdalitis is familiar to all, and needs no further comment. The fact is certainly obvious to all that enlarged and diseased tonsils and adenoids add much to the gravity of

any of these diseases and frequently prolong a more speedy convalescence.

I wish now to speak but a few minutes in reference to the obstructive influence of this lymphoid tissue upon the respiratory and aural development of the individuai.

The development of any chest, the expansion of any lung, which is one of its physiological functions and thus indirectly the oxygenation of the blood for the purification of the whole body, is absolutely dependent upon free and unobstructive respiration through the nose and mouth. A child with enlarged tonsils and even more so with a naso-pharynx filled with adenoids, has but a feeble constitution to withstand the numerous ailments which seem to be the heritage of the young. The two conditions, adenoids in the naso-pharynx and enlarged tonsils, are usually associated together, although I have frequently seen a large amount of adenoid vegetations without a corresponding enlargement of the tonsils. Both conditions are obstructive to free respirations, and in many cases enlarged tonsils are just as serious offenders as a bunch of adenoids, for they extend high up beneath the palatal folds and can materially narrow and diminish the size of the naso-pharynx.

This leads me now to the consideration of the second point, and that is the indirect influence upon the ears of this obstruction to free nasal respiration. The eustachian tube acts as a chimney, and in order for it to be freely ventilated and likewise the middle ear, there must be an unobstructive passage of air continuously over its mouth which terminates in the naso-pharynx. Breathing through the mouth is absolutely useless in exerting any influence on the middle ear, because the air cannot possibly reach the opening of the tube. This lack of ventilation in the middle ear, produced by the presence of adenoid vegetations and enlarged tonsils, is most usually the starting point of the so-called dry catarrhal deafness which in after years is so difficult to remedy, and which probably could have been arrested in the early years of life by more radical treatment. Both of these conditions, but especially adenoids, are the hot beds for the production of that catarrhal state manifested in the very young by frequent ear-aches during the winter and a constant nasal discharge. Abscesses of the middle ear with the possibility of the extension of this pathological process to the mastoid, jugular vein and cranical cavity, with all its serious consequences, and in many cases be traced an infection from the naso-pharynx, engendered by the presence of adenoids. This, fellow practitioners, is no idle fancy, but it is confirmed by the experience of all clinical observers.

Having shown you some, not all, of the injurious effects upon the general system by the presence of adenoids and enlarged and degenerated faucial tonsils, I wish to close with a plea for an early and radical operation upon these structures. The results of such an operation, when properly done, is simply marvelous upon the general constitution of the child and in the majority of cases will make such an individual much more able to contend with the physical vicissitudes of life. When should such an operation be performed? Preferably between the ages of three and six, but even earlier should the tonsils and adenoids be found giving trouble. Should all faucial tonsils be removed? My own opinion is that if the adenoids require removal that the tonsils should be removed at the same time, especially if there has been a previous tonsillitis or the tousils are enlarged enough to project beyond the faucial pillars. I believe with Lennox Browne that the tonsils are foreign bodies in the throat and as such are better out than in. I know there will be strong adverse criticism to such a position, but it has been reached only after years of experience and the observing of conditious later in life which could have been remedied had the management of the same been along these lines earlier in life. Why wait to operate later in life, or perhaps not at all, and allow abscesses and discharging ears to fasten themselves upon the individual with all their direful consequences? Why allow peritonsillar abscesses and enlarged cervical glands to undermine the constitutional integrity of the individual? Why allow these constant coughs every winter and those recurring ear-aches in the very young? As Dr. Goodale says, the removal of the tonsils will not always remove the enlarged cervical glands after they have become infected through the tonsils, but you can frequently prevent such a condition by the early and thorough removal of adenoid vegetations and faucial tonsils before the infection has taken place. If adenoids are present in a child afflicted with discharging ears, you cannot heal this condition until the adenoids and tonsils are removed, or if they do heal, under local treatment, there will likely be a return of the discharges with each succeeding cold.

In regard to the operation. The day has passed when a thorough tonsil and adenoid operation should be undertaken in the office, because it not only does the patient injustice but likewise the physician. The operation should be considered a major one, to be performed in a hospital where the necessary technique may be used and where the sur-

geon is able to meet any emergency, should such occur. It has always been my endeavor to impress upon the laity, and the profession also, that this is not a simple operation if done thoroughly, but requires the greatest skill and manipulative ability. I have frequently heard other laryngologists of prominence and ability say that they considered the dissection and removal of the faucial tonsils one of the most difficult operations which they were called upon to perform.

If the operation is done early, when the child is young, the one great danger, that of hemorrhage, either primary or secondary, is obviated, for almost without an exception those cases of severe or even fatal hemorrhage, which have been reported as following the removal of the tonsils, have occurred in adult patients. We must except in this statement those cases of hemorrhagic diathesis.

Only a few words in reference to the operation itself.

I prefer that this be done in a hospital where the nurses and assistants know your methods, and where proper illumination can be had for the field of work. This, of course, can be done at home, and in cases of adenoids alone is quite as satisfactory. I always desire the patient to be placed thoroughly under the anesthetic, and preferebly ether, as the records show that it is the safer. One must have good illumination, so as to see exactly what you are doing. A mouth gag is used, and I prefer one of the Murdock variety. I prefer the patient on his or her back, although some of the best operators prefer the patient in the upright position. The assistant stands on the left side, ready with sponging and the tongue depressor. The tonsils are dissected from the anterior and posterior pillars, pulled out of their beds with the tonsil forceps, a snare or tonsillitome passed over the latter, and the tonsil in this way thoroughly removed. If any remnants of the tonsil should be left on accoudt of its being soft and friable these can be removed by means of the Hartmans' tonsillar punch. The child is now turned so that the face hangs over the left side of the table and all bleeding allowed to cease, which it usually does in a very few minutes, after which the adenoids are then removed. I prefer the Brandegee forceps followed by the curette, and finally with my finger wrapped with sterile gauze. After all bleeding has ceased the child is put to bed on its abdomen with its head turned on one side, so as to allow the escape of blood and mucous. In twenty-four hours, if there is no fever, the child may be taken home.

Liquid diet is ordered for thirty-six hours. One other remark in regard to this operation, and that is to say that results will always be better when the same is performed during warm weather. In fact, I think that only operations of urgency should be performed on the nose and throat in cold weather, if we desire the best results.

In conclusion, allow me to express myself again by saying that this operation is the most beneficial of all in the domain of pediatrics, and if performed early and thoroughly will make the majority of children strong and healthy for all future life.

Grand Opera House.

Accuracy in the Diagnosis of Diseases of the Chest.*

By Lewis M. Gaines, B. S., M. D., Atlanta, Ga., Attending Physician Atlanta Anti-tuberculosis Dispensary; Physician to Presbyterian Hospital; Chief Medical Clinic Atlanta School of Medicine; Associate Director Peachtree Heights Sanatorium for Treatment of Tuberculosis.

Accuracy is one of the essentials of success in every calling. To the physician its value is beyond estimation, both for his own sake and that of his patients. Accuracy presupposes both knowledge and skill, for it is a trait impossible of attainment by the ignorant and unskilled. But, alas! the possession of knowledge and skill by no means implies the attainment of accuracy, but necessitates the virtues of honesty and patience. A hasty examination because the waiting-room is full, a diagnosis based on conjecture rather than accurately ascertained facts—these are temptations and faults which account for many failures, and which too often react upon the patient to his detriment. Such failures are far less excusable than those of honest ignorance.

Aside from ethical considerations, however, I desire to urge the importance of accuracy in the diagnosis of chest diseases for the following reasons:

1. Because of the frequency of diseases of the chest. A far larger percentage of the human race die directly or indirectly of heart and lung diseases than of diseases of any other portion of the body. All honor to surgery and the magic advances she has made in the past half century, but except in comparatively rare instances surgery is powerless to influence in the slightest degree those affections of the chest which carry off such a very large proportion of mankind. It is from the physician rather than from the surgeon that aid must come, and it can only come through the portal of a correct and early diagnosis.

2. Perhaps the most potent reason for

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accuracy is that it is the surest way of arriving at an early and correct diagnosis. This is a matter of the first importance in tuberculosis, the early stages of which are overlooked in a large percentage of cases. It is needless to reiterate that a delayed diagnosis in consumption usually means a hastened end, whereas 70% to 90% of the early cases will get well under the best care. On the other hand, tuberculosis should not be hastily diagnosed. A boy of 14 was pronounced by several physicians to be in a hopeless stage of consumption. He drifted into my hands, and repeated and painstaking examinations revealed a large abscess in the upper part of the right lower lobe. This diagnosis was later confirmed by a surgeon, Dr. Willis Jones, of Atlanta, who saw the case with me. In many diseases of the heart a correct diagnosis cannot be reached except by an accurate and prolonged examination. And correct diagnosis of heart lesions means much more than a scientific refinement. It means prognosis and treatment based on something definite; it frequently means prolongation of life. In this connection, I desire to refer to life insurance examinations. A few few years ago I heard a leading physician publicly refer to insurance examinations as "casual," meaning it was proper they should be so regarded. I am convinced by many personal experiences that the chest examination for insurance is eminently inaccurate. Six months ago I found a man to be in the second stage of pulmonary tuberculosis, who had been passed the week before by an examiner for a prominent company. The man died a few months later. Do not examiners owe their companies the most accurate chest examinations they are capable of making?

3. The progress or decline of many chest affections can only be intelligently followed by accurate examinations at regular intervals. This is particularly true of pulmonary tuberculosis. In many of these tubercular cases the symptoms do not accurately correspond with the real condition of affairs in the lungs. A patient may have gained his full quota of weight, and have most of his symptoms disappear. Yet on careful examination an area of moisture may be found, indicating an active process, and the necessity for the utmost caution, the lack of which will often result in relapse. This is no fanciful statement, but is based on personal experience. So, also, in many forms of heart disease, from the patient's standpoint the greatest value attaches to repeated accurate examinations.

4. The question of prognosis can only be answered honestly after an accurate examination. It is not enough to inform a patient he has tuberculosis or heart disease. He must know what inroads the disease has made, how much lung tissue is involved, the degree of hypertrophy of the heart, and the stage his affection has reached—that is he must know what his chances are, as nearly as they can be estimated. It is true that such questions are often impossible to answer. Nevertheless, accurate examinations will go far toward diminishing the number unanswered or wrongly answered.

5. As a means of determining the most effective treatment, the importance of diagnosis prior to treatment would seem to be beyond controversy. Yet it is a continual temptation to treat symptomatically, and not lay the axe at the root of the tree. As therapy is becoming more scientifically exact, the necessity for accurate diagnosis is becoming more and more imperative. Far be it from me to decry the efforts and achievements of our predecessors, but the general methods and shotgun prescriptions of former times can no longer prevail. Though far from the goal of our dreams, we now recognize certain definite procedures will be productive of certain results in certain cases. Hence the key to the door to relief and recovery lies in the accurate diagnosis. Here again I beg to cite the early diagnosis of tuberculosis as the chief hope of the victims of that prevalent scourge.

6. Finally, I venture to urge the value of well kept case records which are invaluable personal assets to every physician. The very taking and keeping of such records fosters accuracy. Furthermore, such records are of great value for their own sake, and if compiled and edited would contribute their quota to our knowledge. It has long seemed to me that the physicians of the South should contribute far more largely than they do to the medical literature of our country.

How may accuracy be attained, seeing it is so important? First, by obtaining careful case histories. The getting of a first-class history is almost a fine art in many instances. Often it takes time and patience, and such skillful interrogation as a lawyer might well envy. The object is to have the patient state only essential facts bearing on his malady without asking him leading questions. This is often very difficult, and yet a history so taken is of the highest value, as the first correct step.

Second.—Accuracy is to be attained by a painstaking physical examination which does not stop short of any procedure of demonstrable value necessary to clear reasonable doubts in the mind of the examiner. I am satisfied that the results of the examination should be charted. My own method

is to stamp a skeleton chart on the history sheet and by a system of easily remembered symbols fill in the findings. Thus the outline of the heart as determined by inspection and percussion is drawn to correspond to its relative size and position. If murmurs are present their location, intensity and transmission are appropriately shown. So, for the lungs, the exact areas of dulness, the location and character of rales, the character of the breath sounds, and other data can and should always be filled in. In no other way can an accurate examination be recorded and at the same time be so quickly available for reference.

There are certain points in the technic of examinations which I have been led to believe by observation, are frequently imperfectly observed or neglected. To a few of these points I beg to call brief attention.

1. Examination for arterial changes associated with high blood pressure, hypertrophy of the heart, and accentuated aortic second sound. It is too frequently true in physical examinations, especially for life insurance, that the examiner is satisfied if there are no heart murmurs, and if no irregularities or increased rate of the pulse is apparent. It is a significant fact that the statistics of one of the largest insurance companies show that nearly 22% of the first year mortality of passed applicants are due to cardio-vascular disease. Accuracy should be insured by diligent examination for arterial thickening, estimation of blood pressure by the sphygmomanometer, careful auscultation of the second sound at the base of the heart, and estimation of the size of that organ.

2. The true valuation of heart murmurs. In dealing with heart murmurs accuracy is often difficult of attainment, and yet very necessary for correct diagnosis, prognosis and treatment. The first distinction to be drawn is between functional and organic murmurs. I have been led to believe that mistakes here are very frequent. The second point in the valuation is the accurate determination of the valve affected, while the last to be remembered is that frequently the murmur is of less value in diagnosis than many other features of the examination, such as the ascertaining of the size of the heart, the characteristics of the pulse and of the heart sounds, and variations in the duration of the pauses between the beats. It is sometimes true that the silences of the heart are more instructive than its sounds.

3. The mode of examination for the earliest evidences of tuberculosis. It is important to know that the primary site of tuberculosis deposits in adults, in the vast majority of cases, is in the posterior portion of the apex of the lung about an inch from its summit. Hence the closest scrutiny should be directed to the supra-scapular region, rather than to the clavicular regions, which are invaded secondarily as a rule. In making the examination by far the greatest value attaches to stethoscopic auscultation, straining the ears to detect fine moist rales at the end of inspiration, or variations from the normal characteristics of the oreath sounds. I would call particular attention to the value of causing the patient to cough just prior to a moderately deep inspiration. I have frequently elicited a shower of fine crackling rales by this method when none could be heard otherwise. And the detection of such rales persisting after two or three full respirations is diagnostic of a tubercular deposit in the vast majority of cases.

In a large majority of cases these fine rales will be overlooked unless sought for with extreme diligence. By diligence I mean having the patient stripped to the skin, and in the case of women stiff starched underclothing removed, as I have found more than once that the distant rustling of these garments on deep respirations produced a sound almost exactly similar to rales. By diligence I also mean time-takidg and painstaking systematic going over every square inch of surface with a stethoscope. Regardless of what may be said to the contrary, I believe it to be impossible for any living man to hear as perfectly, locate as accurately, and make as few mistakes with his unassisted ear as with a stethoscope. One must remember, however, that the stethoscope, like other instruments of precision, requires constant practice in order that proficiency in its use may be gained. Furthermore, one gets accustomed to his own instrument, which yields him a satisfaction superior to any other. One should borrow or lend a stethoscope with about the same compunction he would a toothbrush. It has been from the infrequent use of an unsuitable or borrowed instrument that all slander of stethoscopes have arisen that I have heard.

A further point in technic which I believe to be of real value is the frequent auscultation of this primary area following the hypodermic administration of Koch's old tuberculin for diagnostic purposes. Even in the absence of marked febrile reaction a local hyperæmia with resulting slight exudate often takes place at the focus of infection, and resulting fine moist rales occur. If there is a slight rise of temperature or reaction at the site of injection, the proof is all the more convincing.

I should like to emphasize, also, the fact that the appearance of tubercle bacilli in the sputum is now regarded as a late sign

of an early stage at best, and that their absence, even if continued, is of no value whatever in ruling out the disease.

Finally, I would urge the necessity of continual study and practice as a requisite for attaining accuracy in diagnosis. Normal chests should be constantly studied and results kept clearly in mind, in order that the slightest variations may be detected when the presence of disease is suspected.

Candler Building.

The Influence of Modern Education on the Physical Development of Woman.*

By D. L. Wilkinson, A. B., M. D., Montevallo, Ala.

For the past eleven years I have been studying the educational problem from the standpoint of its immediate and remote effects upon the development of our women. During these years I have been physician for nearly 5000 college women between the ages of 14 and 21. I have now over 300 under my care. Many of these girls have been measured and weighed, their family and past personal histories obtained, their sight and hearing tested, their menstrual histories recorded, and their own observations noted as to their physical condition before and after beginning college work. In addition to this I have largely culled the literature, swapped reports with other college physicians, etc. I can only conclude that as at present conducted, modern educational methods are replete with mistakes, pernicious to well rounded physical development, the highest mental attainment and a stable nervous equitibrium. It also adds its quota to occular disease, consumption, gynecic troubles, sterility and marital unhappiness.

The greatest economic mistake of the age consists in permitting a continuation of neuroses, physical defects and stigmata of degeneracy, where possible to prevent them.

If education is 'To fit us for complete living", as Tillotson has defined, its object can not be the accumulation of useless knowledge, but it must mean storing away of knowledge that finds its greatest use. What greater use can knowledge find than the knowledge of how to live? This means that we must know some anatomy, much physiology, and a great deal of hygiene, sanitations, preventiee medicine and chemistry.

In these particulars, our schools and colleges are sadly deficient. We, ourselves, are largely responsible for this state of affairs. We have been too busy with the treatment of diseased conditions to sufficiently consider the education of our sons and daughters. Physicians throughout the South, especially, should study school problems and put themselves in a position to regulate many abuses that now exist At least one well qualified physician should be on every school board in the South, and it is not sufficient that these physicians should inspect regularly the schools under their separate jurisdictions. Full histories should be obtained and recorded of every pupil's physicial condition at the beginning and close of every scholastic year. These histories should be recorded by the card index system and should be very complete, showing not only the pupil's past history, but also his family history. There should be recorded then the pupil's present physical condition, the number of studies he is carrying, etc. Notes should be made and personal inspections made of the pupil's home surroundings. The teacher should be reported upon as to his or her physical condition, temperament, habits, cleanliness, etc; A report of this kind would read about as follows: Mary Doe, aged 13, residence 218 Blank Street; mother died from tuberculosis. Mary has had measles, scarlet fever and whooping cough; adenoids, enlarged tonsils, astignatic, undersized, pallid, anaetic heart murmurs, muscles flabby; home surroundings unsanitary, sleeps with three others in close room, meals sufficient in quantity, but poorly prepared. Teacher aduised as to the number of studies and hours of recitation; parents advised as to necessity for removal of adenoids and tonsils, the wearing of glasses, and the improvement of home conditions; teacher, healthy, of cleanly habits, but peevish and not alive to the importance of properly caring for the health of her pupils. The school inspector should report on not only every thing relating to the schools sanitary condition, but also everything anywhere near the school building that may in any way affect the healthfulness of the pupils. He should insist upon the correlation of physical development and education without regard to the accomplishing of a maximum meutal work. In otner words a maximum is not desirable for an average—as our teachers seem to demand, These histories and such other information as will readily suggest itself should be tabulated so that at any time any information desired concerning any school or pupil may be readily accessible to either parent, pupil, teacher, physician, health officer or superintendant of education. Some such forward step, supplemented by regular lectures on the care of the body, hygiene; sanitation, preventive medicine, and kindred subjects, would soon bring about a much better physical condition and a higher citizenship, especially if the inspectors are given the

*Read before the Southern Medical Association, Atlanta, Georgia, last Fall.

authority to enforce their recommendations. This ought not to be difficult as parents, and educators will consent, I believe, to any change that we can prove is wholesome. practical and of far reaching consequence in racial progress. In many of the cities and in many of our schools we have already demonstrated the very great value of medical inspections. If this is true anywhere, it is especially true in the South and in our colleges for women. When woman loses the college opportunity for physical development she loses her final opportunity. Woman is the greaer factor in heredity. Her ultimate function, and in normal woman, her greatest desire, is legitimate, healthful motherhood. If her health fails her in college, she enters life handicapped. The general changes in the anatomic and physiologic functions of young women are too well known to need reiteration here, but in the South we have been too largely inclined to accept deductions made in the East without regard to the earlier maturity of our women and the possible effects of an efforced education at an earlier period. We must make our own observations and follow our own deductions, Education largely accomplished before the menstrual molimen begins, and education forced during the years of puterbal changes exert a vastly different influence on the human economy. Our girls become sedentary, dignified and retiring much earlier than Northern girls. We contend with the enervating effects of a much warmer climate and more of our women suffer from obscure and diverse troubles like the anaemias, chlorosis. unciniarisis, etc. Our women mature so rapidly that it is impossible oftentimes for the mental and nervous systems to meet the rapid changes going on in the osseous and muscular systems. The result in seen in neuroses and pyschoses. Unfortunately our women have inherited ihe notion that it is unlady-like to romp and play; that a lady should idle and not work. My statistics show that puberty occurs in the average woman in Alabama at the tender age of 13 years and 9 months, The problem with us is to make our girls take the exercise they need for full physical and symmetrical development and at the same time to distribute the educational effort so as not to overcrowd them. It must not be forgotten that pubertal changes are not accomplished all at once, but are distributed over several years. During this time there is a tremendous increase in the number of broken down cells in the body, consequently there should be a corresponding increase in the amount of exercise. Unfortunately the reverse is true. If you add to this indisposition upon their part, 6 hours for recitations (as most of our schools require) at least an equal time to prepare for these recitations and in addition, add art, elocution and music as many of our girls have, you will readily see that they are over-crowded—exercise is cut down to ½ hour twice a week and this is grudgingly given. The result is that effete products accumulate, toxaemsias result, the brain becomes sluggish and inactive, the kidneys are overworked, the nervous system suffers a tremendous shock, physical development is interfered with, the most important function in woman's after life becomes altered, and she suffers from ihe conseqences of a disordered uterine function—either menorrhagia, dysmenorrhoea or amenorrhoea. No wonder that we reap the whirlwind: irritable temperaments, flabby muscles, infantile uteri and sterility; idiosyncrasies, perversions, hysterias, choreas, neurasthenias, anaemias, digestive disorders, and so on through the category of diseased conditious. The desire of woman to put herself in an earning capacity and her unwillingness to admit the influence of her menstrual life upon her physical well-being is largely responsible for the crowding in educational work, and it has done much to lose her the cooperation she deserves. Very vnfortunately onr women are taught but very little about themselves and this they are compelled to get as best they may. I have personally known girls who were in absolute ignorance of the menstrual function until its first appearance, and they were much alarmed thereby until informed that it was a natural function. I have known society women to tell girls to take cold baths to stop the discharge if fhey wanted to go to a ball. Amenorrhoea' dysmenorrhoea and menorrhagia, in the order named, are much more frequent among college women and more unamenable to treatment than in women out of school. My statistics differ here frem investigators in the East: Dysmenorrhoea seems to be more prevalent there; amenorrhoea, here. Among 1200 girls, 75% suffered from amenorrhoea, while 90% suffered from some trouble of menstrual origin. We have been enabled to reduce this percentage considerably under hygienic measures. Drugs are practically useless, unless the menstrual disturbance is secondary to some other disturbance. Menorrhagia is most difficult to relieve. In most of our schools we have cases of menorrhagia going on from term to term until the general health is broken down and even life itself endangered. One of my worst cases of this nature was a physician's daughter. In spite of many letters and my urgent advice to remove her from school for purposes of an operation, do you know he forced her continuance, and the teachers,

in spite of protests, forced her attendance upon her recitations until the close of school. She left school one of the most chloric women I have ever seen. When physicians set such examples, do you wonder why parents do not rise up in righteous indignation? Speaking generally, there are several defects of school life that are especially reprehensible. The endeavor to accomplish a maximum of work in a minimum of time; the classification—the weak must keep up with the strong—the dullard with those mentally bright; the lack of instruction along practical lines and a knowledge of one's own functions; the fact that no leniency is shown during the menstrual period; the cram of examinations; grading according to per centages; inadequately equipped gymnasiums; the absence of regular, daily systematic exercises, etc. Most of our colleges for women are now insisting upon high curriculums. There can be no objections provided education and physical development are properly correlated. While most of the teachers in our colleges for women are women, I have found more of them unamenable to reason than men—not because they do not believe these truths, but because, they say: "Well, I had to undergo the same thing, and I've gotten along alright." Nine out of ten of these women are irrascible, peevish, snappish old maids and to any fair minded man or woman their pitiable condition appeals for sympathy. In the "teens" is woman's great time for storing up force, nerve energy, and cellular activity—nature's most strenuous effort is being put forth. If the cells are poorly nourished, if nerve energy is wasted, if vital force is exhausted, ill health is inevitable, sterility results, or in later life there is a weakened progeny. The only person who can remedy this is the physician and he can only do it by a careful study of each pupil. The college physician then is a necessity, and the necessity for the medical inspection of all schools can be as readily proven. Observations extended over several years show that 35% of our girls are received in college already suffering from some chronic trouble. That this is due largely to defects in the public and high schools, there can be no doubt—probably unsanitary conditions and indulgences at home are in part to blame, but this can not account entirely for the increase of digestive disorders, anaemias, etc. The past year, on entering college, 75 out of 250 girls examined, gave a history of marked menstrual disturbances, i. e. 30%. 10% gave a history of antecedent tubercular history. 100 girls out of the last 300 examined, or 33 1-3%, showed defective vision. If Gould is right in his contention that eye strain has a most deleterious effect upon the health of the individual, then are we indeed in need of eve possible preventive measure for we are fast becoming a race of myopics. Right here let me say, some of our colleges are making a very serious mistake in allowing traveling opticians to do the refracting work of their pupils. The medical profession should protest against this in no unmeasured terms. Practically all of the disorders of young women are increased during college years. A word as to self abuse-I have tried in every way to ascertain whether this was a prevalent habit, as some authorities have claimed; I have only been enabled to learn of one case in nearly 5000 young women, and this was a paranoiac who was later sent to an asylum, hence I conclude most emphatically. self abuse does not existin the average normal Southern girl of mature years. I have said nothing, purposely, about the evils of dress, the natural imprudence of women, their neglect of themselves, etc., believing that these conditions can be remedied by a sufficient number of heart to heart talks with the girls themselves. The infrequency of marriage, late marriage and the sterility of college women, I believe to be largely due to higher ideals among our college bred women. It is more difficult for them to secure mates of similar ideals. Their sterility is due to no unwillingness to bear children, but the unfortunate lack of development which seems to be concomitant with higher education. As wifehood and motherhood are the true ends of womanhood, we should see that our women are developed to their fullest extent physically, then there will be no evil results from the highest mental development. Educational efforts should be directed more towards woman's ultimate end in life and every woman should have as a part of her training in life a knowledge of herself and a knowledge of the processes of gestation. If left to her, I am sure she had rather be taught how properly to clothe, care for and feed her offspring than to cogitate over differential calculus or to meditate over the religious beliefs of the ancients. She should at least be taught hygiene, sanitation, physiology, biology, botany, zoology, domestic science, scientific cooking, nursing and infant feeding. They should be taught more largely out of doors. All colleges and high schools should be equipped with good gymnasiums, and physical culture exercises should be regular and systematic, under well trained instructresses. Possibly I should apologize to you for not quoting from Christopher, McDonald, Hall, Kelly. Goodell, Playfair, or from some of the recent writers before the American Academy of Medicine, but no one of these

has considered the subject from a Southern standpoint. I am reluctant too, to conclude that in their deductions they are invariably correct. I want us to investigate this subject for ourselves. From a considerable number of histories at my disposal, I select a few for rehearsal, and I have concluded.

Miss C., aged 18, family history negative, except that a younger brother was idiotic, very bright, led her classes until the spring term of the Junior year, broke down, had to leave college, married at 20, has been married 10 years, no children, has been an invalid since breaking down at college. Cause: Nervous temperament, hard work, no exercise, ozoena, chronic indigestion and constipation.

Miss R.. blonde, entered college at 14, family history excellent very close hard student, suffered from amenorrhoea, took exercise only when compelled—that was ½ hour twice a week. Went from bad to worse, graduated at 17, but died 8 months later from tuberculosis.

Miss B., brunette, aged 20, mother died from tuberculosis, physical health good upon entering college, very hard student, but learned with difficulty, could not keep up with her classes, went to bed 3 months after entering worrying over recitations, spent most of the next 60 days in bed, was then sent home; has been suffering from nervous prostration since leaving school. Cause: Compelled to do work beyond her strength.

Miss P., blonde, aged 18, entered college suffering from menorrhagia, refused operation, continued work in spite of condition, family history good, went home at end of session, with haemoglobin percentage of 60 and in a state of chronic invalidism.

Miss B.. blonde, aged 16, tuberculosis in family, developed broncho-pneumonia, refused to go home after recovery, but continued her studies. Soon after her return to work had return of cough and microscopical examination of sputum showed tubercle bacilli.

Miss J., aged 17, family history good, broke down during year from over work, but continued studies in a desultory way, In February developed broncho-pneumonia, followed by empyaema which was in turn followed by pyaema, after 101 days in bed, recovered, but was for months compelled to be wheeled wherever she went.

Miss S., blonde, family history bad, mother insane, hard student, 3 or 4 months after matriculation couldn't sleep at night, became very melancholic, was sent home in unbalanced mental condition. As illustration of condition when she left school would pace the floor all night in that long restless stride of mania and at times had the typical pupilary glare of the insane. She subsequently improved under relief from worry, and at home finally regained an apparent normal condition.

Now there are several points to be considered about these histories: Probably none of these girls should have been accepted by any school until they had shown that they were physically qualified to do college work, but having accepted them, the school or college should have provided every safeguard to preserve what little health they did have. Here we encounter the system of classification, and the fact that they must keep up with their classes or drop behind. When they are thrown in lower classes, then a "howl" is raised at home. It is impossible to enforce cooperation upon a faculty unless we have parental approval at home and this, without an educational campaign, it seems almost impossible to obtain. The only alternative that seems feasible to the writer is that the physician should have supreme power—even power over and above that of president or teachers. To secure this we must again educate the public to the extent that boards of trustees will give to their physicians unlimited and unrestricted power in all matters appertaining to the hygiene and sanitation of onr schools and colleges, as well as in all matters of classification, physical culture and out of door exercise. Here, the diet is an important consideration and should be constantly watched, altered and changed according to individual requirements.

One word more: A school should never have a physician under the power of either a president or a faculty. Personal prejudices play too important a part? A college that has a physician only for purposes of treating the sick had prebably better not have any regular attendant at all, and any school operating without a physician ought to be tabooed by parents generally having the welfare of their sons and daughters at heart.

Carbuncles.*

By J. G. Johnston, M. D., Chester, S. C.

A Carbuncle is a circumscribed inflammation, extending through the skin into the cellular tissues beneath, and due, in most cases, to the Staphylococcus.

It may occur in any part of the body, but seems to have certain points of predilection, the most common of which is the back of the neck. It seems to occur wherever there is any irritation of the skin, and it may be that the constant rubbing of the collar on

*Read before recent meeting of the Tri-State Medical Society, Charleston, S. C.

the back of the neck is responsible for their being found there most commonly.

One of the first symptoms of a carbuncle, is a slight redness and swelling of the part, accompanied, usually. by pains radiating from the point in various directions. If it happens to be on the back of the neck there is a stiffness of the muscles and pain running up into the head more noticably than elsewhere.

The patient thinks little of it—thinks he has a little boil on his neck and very likely squeezes it or gets some friend to squeeze it for him. This usually does more harm than good for it bruises the underlying and adjacent tissues, making infection of them much more easy. This state of affairs may continue for a few days with pain and swelling gradually getting worse. He then puts a poultice on it—thinking thus to soften the core and get rid of it. In this he is usually mistaken, for instead of getting better it continues to grow worse and larger. By the time he consults a physician it has gotten such a firm hold that nothing can prevent it. The physician then finds a large circumscribed mass with two or more openings in it, with pus oozing from them and an infiltration of the surrounding tissues, so much so, that the hardness sometimes extends several inches on all sides of the openings, Those on the back of the neck p oduce such intolerable pain in the head that nothing short of Morphine hypodermically will relieve it. This infiltrated skin has a dusky red appearance and is very hard to the touch. The temperature ranges from 99 to 105 degrees. The bowels are constipated, the urine high-colored, and in many patients some sugar is found, as it is generally known that a man who has many carbuncles is in a pretty good road to become a Diabetic.

However this paper has nothing to do with that, only dealing with the carbuncle alone.

Now as to treatment: Almost everything in the medical alphabet has been used and praised by some one. However there are a few things that all agree are among the best things to be done. Many advise making two deep cross incisions through it and curetting out the contents. Some advocate the injection of carbolic acid into them to stop the infectious process. I suppose the most common practice in all cases is to anesthetize the patient and cut out the whole infected area. This usually relieves the pain, but it is very seldom that you will find a patient who is willing to undergo the anesthetic until he finds there is absolutely no other way out of his trouble. This also has the disadvantage of making a large scar, that stays with the patient as long as he lives. If, in this operation, you do not get all of each division, you are likely to have further trouble and a spread of the infectious process. Now, I do not propose to criticise these modes of treatment and stop there, but I hope to be able to present something that will materially help the doctor in dealing with these painful affections. To be brief, the plan I have found best is to treat them with a high power incandescent electric light. This plan of treatment softens the mass around the immediate infection, stops the infectious process, and almost entirely relieves the pain. They will almost invariably get well in a much shorter time under this than any other plan of treatment I have ever tried. The light has a decided influence on the spread of the infection, rendering it more circumscribed. The most wonderful part of the whole thing to me, is that the parts are so nearly anesthetized that you can do what little cutting is necessary or what squeezing is necessary to force the pus out with very little pain to the patient. I use a 500 candle power incandescent light with a parabolic reflector over it, focussing the light rays on the desired spot; at the same time drawing down the lamp as near the patient as he can stand. It gets hot alright, but the relief from pain is so great that they are willing for you to make it hot for them. I have treated a number of cases in this way, the number of treatments varying from one to twelve—giving one treatment each day. I will not go into details with these cases, but will only say that with about an equal number treated in the old way with poultices, lancing, &c., and those with the light—that the former took about as long again to recover and suffered three or four times as much as the latter. One thing I wish to mention is this—that the time required to complete the cure after the cores have been removed is also very materially shortened.

In conclusion, I only wish to say that I think the advantages of the light treatment are briefly these:

1. Less danger to the patient.
2. The pain is much less.
3. Recovery much more rapid.
4. Much smaller scar.

I am sure that if you will give it a thorough trial on even one patient, that you will never go back to the old way of treating them again.

Peripheral Operation for Tic-Douloureux; Report of Case.

By Dr. A. E. Baker, Charleston, S. C., Gynecologist, Roper Hospital Polyclinic Medical School.

Of all diseases that are not fatal, probably facial neuralgia is one of the most distressing and one of the most difficult to cure.

The external treatment of this disease has been almost as varied as the internal; all manner of application of heat, cold, drugs, liniments and lotions, have their testimonials of cure. Electricity is employed in the form of electrolysis and high frequency current. The X-Ray has been used as well as thorium and radium.

The number of surgical and semi-surgical methods for the relief of this trouble are probably greater than that ever advanced for the cure of any other disease.

Owing to the mortality of operations on the Gasserian Ganglion, which is at least 10 per cent, and the fact that at first we may be unable to differentiate between a major and a minor neuralgia, the peripheral operation on individual nerves should first be tried, provided all, or a large number of the nerve, are not involved.

To obtain the best and most lasting results from peripheral operations the nerve should be removed as far centrally as possible. The branches of the 5th nerve show a very strong tendency to regeneration leading to recurrence of the neuralgia after neurectomy, especially those branches which occupy a boney canal.

In mentioning some of the operations which have been devised, the strecthing of the nerve was done as early as 1748; it gave some little relief, the method has been abandoned. The division of the nerve was but little better, in that the nerve reunited so quickly.

Resections of portion of the nerve gave relief from 6 months to 2 years, at which time the nerve had succeeding in reproducing itself.

J. Ewing Mears recommended the removal of the Gasserian Ganglion in 1884, and this was first done by Dr. Rose in 1890.

Dr. Abbe, 13 years ago, advocated the intra-cranial inplantation of rubber tissue to cover the foramen of exit of the various branches of the trigeminal after their resection. This effectually prevented the regeneration or reunion of the nerves, and a further report was made in 1903, showing permanency of cure. Shortly after this original work of Dr. Abbe's, Dr. C. H. Mayo, accepting the idea of interposing mechanical difficulties to the nerve union, devised his operation, which is based on the different function of the motor nerves from that of the sensory nerves, namely: that the motor nerves require a favorable opportunity for reunion, while it is a most difficult matter to prevent the regenation and return of function of the sensory nerves.

The impulse of the motor nerves being from the center outward, the peripheral end degenerates. The function of the sensory nerve fibers are just the opposite, which is from the periphery to the center.

His method is to remove as much of the nerve as possible, by resecting it out of the foramen by Thiersch's method, then plug the foramen with a silver screw, the screw being sufficiently large as to be forced in the foramen by means of a screw-driver, thereby making it impossible for this screw to become dislodged; such being true, the nerve can never grow back through this foramen to reunite itself with its peripheral end.

Report of Case.

Capt. E., aged 65. Suffered 9 years with facial neuralgia, having intervals of a few months rest from pain.

As usual, he had every imaginable treatment rendered him but with no permanent results.

Finally his sufferings became so intense that he could not talk or eat without severe sufferings. Also he could not sleep except under the influence of morphine.

Life under such circumstances he felt could not last long, therefore, he accepted the operation which had been offered him several times before.

The operation consisted in dissecting the infra-orbital nerve from the foramen and with a hemorrstatic forcep caught the nerve close to the foramen and winding the nerve on the forcep by Thiersch's method, which enabled me to remove at least 2 inches of the nerve.

With a Mayo's silver screw, the same being ¾ inch long and a ¼ inch thick, by means of a screw-driver, placed this most firmly in the foramen, thereby making it impossible for it to ever become dislodged. This being true, the nerve will be prevented in its efforts to reunite itself with the peripheral end.

It has been one year and a half since this operation and the patient has been entirely free from any symptoms of the old neuralgic pains. Quoting his words "I am now a well man."

The Potency of Medication in Serious Cardiac Disease.

By Alexander G. Brown, Jr., M.D., Professor of Theory and Practice of Medicine, University College of Medicine; Physician to Virginia Hospital, etc., Richmond, Va.

In no department of medicine has therapeutic pessimism been more emphatically checked than in the recent studies and treatment of cardiac disease. This signal reaction in the use of drugs for the amelioration of the distressed, the prevention of the premature terminatiou in degenerative disease processes, and the cure of disease itself is nowhere more clearly evident than in this

branch of medicine; and this remarkable fact, in which all physicians must rejoice, is to be explained upon a two-fold basis: notably, the new and clarifying additions to our knowledge of the phenomena often characterizing pathologic conditions of the heart and, secondly, a coincident enlightenment upon the value and therapeutic application of remedies used in these conditions. When we reflect upon the pictures presenting clinically in some cases of heart disease, as that of failing heart with dropsy, dyspnœa, insomnia, discomfort and many others, or of angina pectoris with its great pain, alarm, and so on, or some functional syndrome with its tachycardia or bradycardia, and see these groups of heart maladies yield to therapeutic agents and be removed from conditions of gravest danger to those of comparative comfort and security against premature and sudden end, we can very readily understand the renewed interest and enthusiasm exhibited in the consideration of this subject. The former conception that heart murmurs were the only diagnostic symptoms of supreme importance; that the lesion back of such murmurs, of structural origin, represented irremediable conditions in which effort should be limited to the comfort of the case; that the heart should not be considered therapeutically until these murmurs were associated with pronounced symptoms of a more or less distressing kind, is giving way to the view that heart murmurs give but little valuable information in connection with the matters of greatest importance in the treatment of cardiac diseases, that valvular disease is really of far less importance than the behavior of the myocardium and that the early management of beginning derangement in cardiac action is of the greatest importance, and that upon these conditions depend therapeutic success.

Another more recent consideration of this subject is to take a broader range as we study cardiac problems. No longer do clinicians deal with heart per se. The vascular system has to be considered at the same time. The newer views of arteriosclerosis have added much to the successful management of cases with prominent cardiac disease. The mere fact that palpable arteries seem not involved in sclerosis does not preclude the likelihood of serious vascular disease:—not infrequently a condition in which the crux to the distressing symptoms are to be found. Internal and local arteriosclerosis, with or without high arterial blood pressure, often sustain a most important relationship to the cardiac embarrassment. Further, the value of medication in cardiac diseases depends upon an adequate understanding of the proper operation of the circulation, as revealed in secretory functions, in certain viscera, notably the kidneys, intestines, liver, lungs, and so on.

The potency of the therapy of serious cardiac conditions might be discussed in several ways, but I desire to present the subject from the view point of drugs commonly used in heart maladies.

Digitalis.—This is the great cardiac stimulant. It has its definite field of therapeutic application. It has its peculiarities that makes it dangerous and harmful to the heart under some conditions. It is toxic from cumulative effect or from over-dose, producing incoordination and disassociation of auricular and ventricular systole. He who gives digitalis to slow the heart in paroxysmal tachycardia, in cases of fever, in cases of associated acute nephritis, in pleural effusion, in cases of extensive and late degeneration of the myocardium with arteriosclerosis, in pneumonia, in rheumatic fever, will meet failure in its use. In these conditions digitalis is impotent. Not only the nature of the heart lesion has an effect upon the efficiency of its action, but also the kind of preparation has a decided influence upon the results secured. Therefore, it is important in administering this drug to know that you are working with a physiologically standardized preparation. This subject has recently been thoroughly investigated by Edmunds and Hale (Bulletin No. 48 Public Health and Marine Hospital Service of the United States). The action of digitalis upon the heart may be divided into three elements. It slows the pulse by prolonging the diastole through stimulation of the vagus. It effects greater tonicity in the heart muscle and thus produces a stronger and more complete systole. It acts to produce constriction upon the splanchnic arterial vessels and dilatation of the peripheral and cerebral arterioles, due, it is thought, to the increased pressure in the internal arteries. (Miller, J. A. M. A., Vol. II, No. 21, citing Gottlieb and Magnus). Having the standardized drug and administering it in the selected cases in which it is useful the clinician has to watch the effect of the drug upon the heart very carefully. Sometimes brilliant results will be forestalled by the too persistent use of it; sometimes the results will be delayed by the insufficient dosage. The careful study of the pulse, an accurate observation of the daily secretion of the urine are essential as a guide in its use. The first good effect to be noted in the use of digitalis will be the increase of urine; this usually appears in about forty-eight hours. The pulse is slowed, has more precision and more vol-

ume. When these physiologic conditions are accomplished the drug must be reduced in dosage and under such circumstances can be continued for a longer time, modifying the frequency of the dose to meet the conditions, without the fear of toxic phenomena. The administration of digitalis can be by mouth, intravenously, or by rectum. The usual method, unless there is decided gastrointestinal irritation from its use, should naturally be by the mouth; especially so in office and general practice.

The chief affections of the heart responding to the use of digitalis are those that show dilatation of the heart with comparatively healthy muscle. In cases with a weak and insufficient systole, this drug, properly used, effects most satisfactory results. In old rheumatic cases, with weakness of ventricular action, with symptoms of failing compensation, with passive hyperæmia of venous circuits, this remedy accomplishes brilliant results. Cloetta (cited by W. His, Therapie der Gegenwart, Berlin, XLIX, No. 10, p. 433) states that the administration of digitalis in recent valvular trouble will restrict the compensating hypertrophy and dilatation to a minimum. In these cases its continuous use in the period of convalescence following acute endocarditis the drug has been most useful in my experience, and I believe has forestalled grave cardiac terminations in several cases that showed a tendency to sudden cardiac failure. The administration of digitalis in aortic regurgitation has been a question of dispute. In these cases effectual good can be done if the case is one uncomplicated by great sclerosis of the arteries; with high blood pressure the administration of digitalis is not only not indicated but it is decidedly harmful. But in cases of aortic regurgitation, with hypertrophy and dilatation, relative mitral regurgitation, the use of digitalis is very good in its results.

In mitral regurgitation digitalis is most efficacious. Especially when the disease process begins to show or has already reached broken compensation. Some observers, as Bayet and Wood (cited, A. J. M. Sc., Vol. CXXXVI, No. 5. p. 661) disclaim for it any signiigcant usefulness upon the right ventricle and therefore they claim in failing compensation of mitral regurgitation when the right ventricle shows dilatation this drug could not be relied upon to tone up the muscle of that chamber. However, the clinical experience of other observers substantiates the view that digitalis, or some member of the group, effects both ventricles, restoring tone and vigor to innervated muscle and re-establishing the equilibrium of the circulation. It is conceded that this drug is capable of excellent achievement in this affection, even to the point of passive congestion and dropsy. In cases of stenosis at the aortic or mitral orifice the use of digitalis is not indicated and will do serious harm unless certain complicating factors exist that demand the temporary use of it, such as secondary dilatation of the right ventricle and passive congestion of the liver and dropsy. In these conditions digitalis should be used to restore tone to the right ventricle; when this is accomplished other remedies must be relied upon to maintain the equilibrium.

There is a class of cases in which the use of digitalis can be of advantage only in certain stages, and that is those cases without valvular lesion showing arterial sclerosis with symptoms of cardiac distress. This cardiac condition, following upon the obstruction to the circulation in the aorta, kidneys, and splanchnics, due to sclerosis, may show a tachy-arythmia, may show rapid auricular systole and slow ventricular action, may give signs of dilatation of the left ventricle, or secondary relative regurgitation of the mitral valve, and later with œdema of the lungs with dilatation of right ventricle and venous pulse.

In this class of cases, now so often seen, digitalis can have no place in the therapy, except in the most unusual syndrome, until the late signs of lower blood pressure prevails in arterials and the heart labors under the bane of broken compensation. In these later stages its careful and skilful use, in connection with elimination of toxic agents and unburdening the splanchnic and renal circulation, good results can be gotten here. *Strophanthus, squills, apocynum,* and *adonidin* belong to this group of remedies. The use of squills, apocynum and adonidin (this last remedy is said to have a dilating effect upon the coronaries) are employed very little on account of their irritating qualities in the gastro-intestinal tract. Strophanthus, formerly thought to have no constricting effect upon the internal arteries, but latterly believed to possess this quality, although to a less degree than digitalis, is much like digitalis in action. It differs from it in being less powerful as a tonic to the heart muscle but in its use the cumulative toxic effect has not been observed to any marked degree.

But the potency of cardiac tonic remedies depends also upon associated therapeutic measures. Digitalis alone will often fail in cases that seem to be ideal for its use because of the absence of certain co-incident therapeutic agents directed to assist in the solution of the disease problem. Often the use of sparteiu sulphate in large doses will effect happy results in the restoration of the secretion of the kidneys. In some cases

where great nervousness prevails and certain alarm obtains the use of morphine sulphate and atropine sulphate will be most useful in reducing this strain upon the circulation. The removal of dropsical effusion is an important consideration in these cases and it is a condition which the digitalis cannot remove promptly without material assistance. Under such circumstance the use of a strong cholagogue, as calomel, elaterium, or elaterin, is advantageous. Excessive liquid diet should be supplanted by dry diet. In my hands the interdiction of salt in the diet has been helpful in the reduction of the dropsical effusion. Under certain conditions the use of vasodilator drugs are necessary to relieve the constricting effect upon the splanchnic arteries and to assist in lifting the burden from an overtaxed heart muscle. Sometimes it is imperative to maintain rest of the body in recumbent position. Any muscular exertion but adds to the problem in some cases. I recall a case referred by Dr. J. W. Henson of Richmond, in which the only change recommended to that already practiced by him was to keep the patient in the house for two weeks and that in an even temperature. This patient showed improvement and has been able to return to his usual duties. The gastrointestinal digestion should receive the constant attention of every clinician in his treatment of cardiopaths. The early elimination of the toxic accumulation of acetone bodies or the indol agents. The clothing in winter should be warm and capable of maintaining an even temperature upon the peripheral circulation under all ordinary changes of weather and climatic conditions. The success in the treatment of cardiac disease rests upon another factor. It depends upon the dosage of the remedies used. In this class of disease conditions where the endeavor is to re-establish function the dosage must depend, not upon the ordinary rules, but upon the physiologic effect of the remedy. Having a clear cut idea of the pathologic phenomena and the symptom-complex to be dealt with, the remedy must be applied for the removal of such conditions as form the problem. Watch must be kept up for the earliest physiologic effects and the strictest lookout must be maintained for the earliest toxic effect of the drugs.

In all these cases the tonic treatment should be continued for such period as is required to restore the functions of the heart.

In conclusion, I recall a case of a boy, fourteen years old, who has had within the last four years five attacks of broken compensation following rheumatic seizures. In this case dropsy occurred until the youngster was greatly increased over normal size, the dyspnœa was distressing and the heart was in a state of delirium. To these remedies, mainly digitalis, he has been restored to activity and is now living a very comfortable life with a fixed mitral and aortic regurgitation. He knows he has this heart malady. He is a cardiopath. The heart muscle must be protected. If protected he may live comfortably to old age. He represents a large class who appeal for medical guidance and treatment.

The Violet and X-Ray Charms.

By Robert Gray, M.D., Pichucalco, Chiagas, Mexico.

Electricity, the medical magic, the light of the world, the breath of the invisible, the life of man, is a theme that elevates meditation to lofty realms.

You people, practitioners, who see and hear its marvels at all hours of the day and night, in material servitude, where science has basely harnessed it in slavish work, do not pause to contemplate its sublime merits and render it that homage you should pay with fear and trembling. Were you where I am, in wild, remote, sequestered haunts of primeval nature, with no electric contact other than the medical employment of the vitalizing current, you would enshrine it in loftiest niche of the temple of fame, as I long have done and do now.

Why, every country physician should have the violet and x-ray portable coils and batteries, now both cheap and practicable enough for a poor doctor to be their possessor, as they frequently pay for themselves several times in a year and render the physician far more secure in his practice. Were the profession free from prejudicial legislative shackles, and able to devote the time wasted with the nonsense of State Boards to electricity and its scientific medical application, it would certainly be a precious boon for suffering humanity. If your legislature could hear read in thunder tones the bushels of letters that come down here to me from collegiate practitioners, ten to forty years in harness and successful practice, unable to answer many useless questions, the laws would certainly be modified.

We are merely in the embryonic electric question, new wonders even being in preparation to surprise us. There are electric scientists who do not believe in electric impossibility short of immortality on earth. No one, as yet, probably ever speculates as to the how of such eventuality and other yet minor features not now in popular dreams.

But the every day practical, easily learned and readily applied processes of clinical electricity are what should engage the solicitude of every physician who has no porta-

ble mechanism and is ignorant of the application in a country practice.

I have found that most electric charms of clinical application are verifiable, and that one may do sterling work out of the actual beaten track indicated as practical by the professors who instruct doctors by book lessons, which are mere finger boards to the intelligent practitioner, who will advance beyond in the strange new field of scientific enchantment.

In the narrow space of a medical journal contribution it is impossible to do more than assure practitioners that electricity is a medical necessity, if one would do some of the best paying practice that cannot be in dreams without the majestic current. I did not find it a difficult lesson; but I began experimenting with the old back number, almost worthless batteries, and have followed it up right along to this high degree progressive epoch, where lessons are clearly practical, much valuable instruction regularly appearing in current medical journal literature, written by physicians in active practice, not by collegiate theorists, just the aid the country doctor needs to guide him aright.

I am forty-three years in this fearful field of tropical fevers, in the sickliest belts of the Continent, without one day of vacation, that has taught me some valuable lessons all along the line of clinical emergencies, being still in harness beyond my four score years of life; and electricity is the future that most interests me and is my study and my desire, that absorb my else idle meditation in long rides over a broken, roadless country and midnight watches beside feverish cots; and I wish all readers hereof would take the same interest in the grand medical mystery.

Tuberculin Administration: A Perfect System of Dose Graduation.

By Lucius B. Morse, M. D., Physician-in-Charge, Dr. Morse's Sanatorium, Chimney Rock, N. C.

In the administration of any powerful drug, the matter of dose is obviously an important one. With most of the older drugs the range of dosage is not very great, and, except in rare instances, it is not necessary or desirable to gradually increase the amount of any medicament given; indeed the reverse almost always holds—the efforts of the physician being directed toward a diminution, rather than an increase of dosage. An exception to this general rule, though, obtains in the use of certain biologic products. I refer to the increasing number of such products as are given for immunizing purposes.

My remarks will be limited to the use of tuberculin as the most representative of the newer immunizing agents, both because of its more extensive and common use, and also because of the longer period of time over which its administration becomes necessary. I wish, though, to emphasize at this point, that what I will have to say regarding dose graduation in tuberculin will be equally applicable to all biologic products, the object of which is the increasing of tissue immunity.

The plan of dosage of tuberculin quite universally followed is in brief as follows: Treatment is begun by a minimum dose, the exact amount of which depends; first, upon the condition of the patient; secondly, upon the particular variety of tuberculin used. The initial dose is increased, at first, very gradually, and the interval between the injections is comparatively short. Later on, larger and larger amounts of tuberculin are given with a corresponding increase of the interval. Finally, there comes a time when no further increase of dose can be tolerated. This dose of tolerance is a most variable one, and depends upon many conditions, the details of which cannot here be entered into. The one danger-signal to the physician who is giving this powerful drug is the reaction,—truly the "red-flag" to the administrator of tuberculin.

To show the far-reaching harmful effects of faulty dosage, one has only to recall the history of the use of this same medicinal agent. Shortly following the announcement by Koch, that he believed that in tuberculin we possessed a most valuable remedy for the treatment of tuberculosis, its administration was commenced by physicians all over the world, with the natural and inevitable result of doing vastly more harm than good. Non-selection of cases, over-dosage, and the too rapid increase of the dose given, were responsible for that memorable swing of the pendulum of popular disapproval, started by none other than Virchow, the extent of which has perhaps never been equalled in the annals of medicine. It was over fifteen years before the medical profession at large recovered from its over-dose of this drug. The patient and doctor alike experienced a reaction against tuberculin.

The medical mind, however, of recent years has changed its attitude. Our present knowledge of the nature and dosage of tuberculin, of its indications and contra-indications, is infinitely greater than was that of those who attempted its administration in the early nineties. Not a few staunch believers in the value of tuberculin, though, are fearful that we are possibly approaching another similar reaction against this agent;—less pronounced, perhaps, but none the less certain. It is thought, now that

the drug is being given by thousands of physicians, that many harmful effects will inevitably result, particularly in the hands of those whose experience in the use of vaccine products in general is of a very limited sort.

Now, it was an appreciation of this very fact that impelled me to work out a more perfect system of dose graduation than that commonly practiced at the present time. As is well known the universal system of diluting the various tuberculins is what might be called the 1-in-10 plan. To one part of the pure drug is added nine parts of some diluting solution, commonly normal salt, with a small amount of phenol. Of this new solution one part is taken, and again nine parts of the diluting solution is added. The process is continued in this manner until the very weakest possible solutions can be made. It is thus obvious that 1 c.c. of any given solution is exactly equivaleut to 1-10 c.c. of the next higher, and more concentrated solution.

The particular dose with which one will begin treatment, will, as indicated above, vary greatly. A common method of procedure is to begin with 1-10 of a c.c. of any given strength and proceed by tenths, i.e., the second dose would be 2-10 c,c., the third dose 3-10, then 4-10, 5-10, etc. Some would deem this as being over-cautious, which doubtless it would be in certain cases.

Let us suppose that we are beginning the administration of tuberculin, and in order to err on the side of caution we follow the plan of increasing the dosage by only 1-10 c.c. of the initial strength used. Suppose we now figure out the percentage of dose increase; by which I mean the calculating mathematically just the percentage of increase that each dose bears to the previous one. The following table shows quite graphically the present method of administering this drug;

		DOSAGE INCREASE
First dose	.1 c. c.	
Second "	.2 c. c.	100 per cent.
Third "	.3 c. c.	50 "
Fourth "	.4 c. c.	33.3 "
Fifth "	.5 c. c.	25 "
Sixth "	.6 c. c.	20 "
Seventh "	.7 c. c.	16.6 "
Eighth "	.8 c. c.	14.3 "
Ninth "	.9 c. c.	12.5 "
*Tenth "	1. c. c.	11.1 "

It would seem that such a method is glaringly at variance with the principle of a gradual increase of dose, which is so much to be desired. It would also seem as though such an uneven method of administration would certainly increase the likelihood of producing reactions. Now this is exactly what happens. Every one who has had experience with the use of tuberculin knows that it is with the first few doses of each solution that the danger of reactions is greatest, The explanation of this is most clear when one realizes the vast differences of percentage-increase of the first and last doses in each new and more concentrated solution.

What was needed, it seemed to me, was a perfect system of dose increase, one in which the percentage-increase should be the same for every dose. After considerable figuring, some of which was wholly empirical, I formulated the following scale of dosage:

	APPROXIMATE	ACCURATE
First dose	.1 c. c.	.1 c. c.
Second "	.13 c. c.	.12913 c. c.
Third "	.17 c. c.	.16674 c. c.
Fourth "	.22 c. c.	.21531 c. c.
Fifth "	.28 c. c.	.27802 c. c.
Sixth "	.36 c. c.	.35900 c. c.
Seventh "	.46 c. c.	.46357 c. c.
Eighth "	.60 c. c.	.59861 c. c.
Ninth "	.77 c. c.	.77298 c. c.
Tenth "	1.00 c. c.	.99814 c. c.

It is seen that I have worked it out so that ten graduated doses may be given of any strength in which the percentage of increase, unlike the older plan, is always the same, or 29.1 per cent. It will be observed that in the earlier doses, the volume increase is less than 1-10 c. c., but, the ratio of increase (the essential thing) is always the same. For the sake of scientific accuracy, I have added in the last column the results of my calculations carried to five digits. The "approximate" scale is the one now regularly in use in my practice.

When following the older method, to avoid the getting of reactions from the first few doses of any given strength, some physicians have advised that successive doses should be increased at first by only 1-20 of a c.c.; and in the last doses of any solution, more than the usual volume increase could be given. Such a plan is, at best, little more than a guess. With the ratio scale that I have devised, the dose increase, so far from being a guess, is mathematically accurate. There is no point in the scale at which one is more likely to get reactions than at another. This, too, coincides with my clinical experience.

If the physician wishes to push the dosage, in favorable cases, faster than the above, he can do so, still retaining a definite ratio of increase. If, for example, five doses are deemed a sufficient number of a certain

*Instead of giving the full c.c. of any given strength, it is customary to administer its equivalent, viz: 1-10 c.c. of the next higher solution, of ten times the concentration of the former.

strength, before advancing to the next stronger solution, he is only to proceed by two points instead of one, and the rate of increase, instead of being 29.1 per cent., would be double that, or 58.2 per cent., which would likely never be exceeded.

Such a dose scale should be of benefit alike to the specialist and to the general practitioner. It is to the latter that I can see a very positive advantage. The number of persons during the year to whom he administers tuberculin, are necessarily few. The danger lies in the reaction,—not the slight evanescent ones, whether local, focal or systemic, but in the severer grades. Such a dose scale as the above will reduce to a minimum the dangers attending the therapeutic administration of this drug.

Conclusions.

1st. The immunizing effects of tuberculin are best brought about by an even graduation of dose-increase.

2nd. The present method of increase by volume is most uneven and is attended by greater danger of producing reactions.

3rd. A system of dosage based on a uniform ratio-increase, such as I have formulated, is most in keeping with the theory of the production of immunity, and constitutes the safest mode of administering tuberculin.

Squint and the Importance of Its Early Correction.*

By Dr. Hugh M. Lokey, Atlanta, Ga.

†Strabismus was mentioned in the earliest medical writings, but was regarded as a permanent deformity. Hippocrates in his writings twenty-two centuries ago refers to it as a distortion, and recognized its inheritance. Celus in the first century of our era, refers to it, but at this time it was not considered ameliorable to treatment. Paulus Aginetta in the seventeenth century recommends the wearing of a mask extending below the nose, with openings for each eye, to induce the eyes to assume their proper position. Pare, in 1561 to '77 describes squint eye as an inequal vision caused by the cradle being placed so that the child sees the light from one side, thus causing the eyes to divert towards the light. Many still adhere to Pare's etiology, and many of the laity now, as well as some of the profession, attribute deviation to the fault of the cradle, a lock of hair hanging over the temple, &c.

In 1737, or before, John Taylor announced an operation by which he could straighten crossed eyes. His practice was to a degree charlatan in nature and did very little to introduce to the world any correct surgical method for the relief of squint. The first practical operation is described in 1838 by Stromeyer. This grew out of the theory that the contracting muscle was shorter and thicker, and the first authentic operation was similar to the one of the present day for tenotomy.

After this the pendulum swung rapidly aud operations were indiscriminately made, with, of course, frequent bad results.

Von Graefe, in the fifties, demanded a more conservative policy. Then came Donders, with his theory of strabismus being due to errors of refraction, arising from disturbed relationship between the accommodation and oonvergence.

I. That strabismus convergens is dependent upon hyperopia.

II. That strabismus divergens is dependent upon myopia.

Bonders' theory was readily accepted and is adhered to by many today, though theoretically and practically shown to be inaccurate. For a time previous to this all squinting eyes were operated upon. The reaction of the pendulum swung rapidly back and resulted in almost as harmful advice,—to wait until the child had outgrown the deformity.

There are two forms of strabismus, the paralytic and concomitant variety. The method of determining the paralytic from the concomitant is as follows:

In the paralytic form the axes of the fixed and the deviating eye do not maintain the same relationship when the eye moves from side to side, while in the concomitant the same relationship of the axes is maintained in all positions. According to Donders' theory, strabismus and heterophoria are produced by the same causes and are confused by some.

Worth's view is that squint is due to deficiency in the development of the fusion faculty: (this is frequently inherited) accounting for the frequent occurrence of children of squiting parents possessing the same defect. Breslau states that 23 per cent. give this history.

Fritz Kehr, in (Wacheuschrift fur Therapie und Hygiene des Auges, December 8, 1904,) divides the authors of the several theories into three classes.

1st: Those who believe amblyopia is the result of strabismus: A. Von Graefe, Donders, Javal, Grunfeld.

2nd; Those who believe that it is partly the cause and partly the result of strabismus: Alfred Graefe, Schweigger, Silex.

3rd: Kehr, himself.

The first two believe it can be improved, but Kehr believes it is the result of ambly-

*Read before Georgia State Medical Association, at Macon, Georgia, April 21, 22, 23. 1909.

†Stevens

opia, and that the amblyopic eye cannot be improved.

Le Grange and Moreau in "Archives d'Ophtalmologie" in 1907, reports his findings of 562 cases of concomitant squint. In 81 per cent. refractive error was the chief cause, and in 38 per cent. refractive error was the sole cause of the strabismus. 43 per cent. of the refractive errors were complicated; 19 per cent. had no error of refraction, and were referred to a strabismus diathesis. The inheritance is due to the pathological condition of the nerve centers and consequent degeneration of the fusion sense. In 1.50 per cent. it was of muscular origin.

A Baker, Cleveland; in the Journal of the American Medical Association, July. 1907, says that squint comes on slowly: at first it is intermittent, then alternating, finally persistent, with deterioration of the sight in the deviating eye. He says 75 per cent. of squints develop before the fourth year. Refraction should be corrected at the end of the first year, atropizing both eyes at the earliest stage, and in connection with this training the fusion faculty. If not corrected by the tenth year he operates. He considers the retinascope the most reliable method of refracting young children.

Dr. de Schweinitz gives as the cause of strabismus,

First: Disturbance of relation between the accommodation and the convergence by an error of refraction.

Second: Disparity in the length, thickness and tension of opposing muscles.

Third: Inequality in the vision of the two eyes, or amblyopia of one eye, which removes the natural stimulus (of diplopia to exact convergence).

Fourth: Disturbance or innervation and defective development of the fusion faculty.

Fuchs says the natural development of squint is accomplished by the reduction in the visual acuity of one eye. Strabismus is the result of combined action of two factors: diminution of the visual power of one eye and pre-existing disturbance in the muscular equilibrium. In strabismus convergens $\frac{3}{4}$ are hyperopic. In strabismus divergens $\frac{2}{3}$ are myopic.

Wendell Reber, in the New York Medical Journal, November 1904, states that squint is likely to appear about the third year. He believes that amblyopia of the squint eye is due to non-use; that it is curative without operation if taken before the 5th year. That the amblyopic eye can be improved by correcting glasses in 50 to 60 per cent. of the cases, and can be cured without an operation in 70 to 80 pe. cent. of such. Results cannot be obtained after the seventh year.

Herman Cohn, in (Wachenschrift for Therapie nd Hygiene des Auges, October, 6; 1904) outlined his treatment of two thousand cases of squint, covering a period of forty years, in which were 700 operations.

First: Until the fourth year bandage the better eye for a few hours each day.

Second: In the fifth year he corrects with glasses and stereoscopic exercises.

Third: He constantly corrects the total hyperopia.

Fourth: He operates only for strabismus of the highest grade in the 6th year, otherwise, he waits until the tenth.

Fifth: He promises betterment of position, but never binocular vision,

Sixth: In strabismus of high grade he advances the external retcus.

D. B. St. John Roosa, in the Medical Record, September 1905, reports two cases: one, convergent strabismus followed by amblyopia exonopsia, cured by the use of glasses and the exclusion of the good eye at intervals and the use of stereoscopic exercises.

Second, Case of amblyopia, which had increased when seen the second time, was afterwards relieved by the exercise of the eye.

In stationary convergent strabismus, Foster' in the Colorado Medical Journal, July, 1907, orders glasses the second year, or as early as squint is observed, using atropine in the fixing eye and exercises with the Worth's amblyoscope. If this does not relieve the condition he operates.

Froehlich in (in Wiener Medizinische Presse, May 11, 1907,) gives for treatment of strabismus, atropine in the fixing eye.

A. A. Bradburne, Southport, England, for over three years with Dr. Worth, who is conceded authority on squint, in "Opthalmology", July, 1908, says there are two varieties of squint, viz: paralytic and concomitant. In concomitant the eye can be moved freely in every direction; in paralytic the movement is limited by the paralyzed muscle. He gives as the causes for squint,

First: A difference in the refraction of two eyes.

Second: Deficiency in the fusion faculty, and in addition there is nearly always found,

Third: Defective vision of one eye, amounting to the loss of useful vision.

Fourth: Inability to bring the deviating eye to bear directly on an object.

Many cases of squint disappear, but never the concomitant, the fusion faculty being defective. The squint that is outgrown is simply due to muscular imbalance, that is heterophoria in which there is

the presence of fusion faculty. The fusion faculty can seldom be awakened after the sixth year. The recovery of the vision of the deviating eye is seldom accomplished after the sixth year. A delay means a loss of valuable time, most squint beginning by or before the age of three.

There are three indications which require attention.

First; To prevent the vision of the deviating eye from deteriorating.

Second: To remove the cause by training the defective fusion faculty,

Third: Remove the disfigurement:

The means of correction are the removal of the refractive error, the complete occlusion of the fixing eye; training patient to use the deviatiag eye. This can be done by using atropine in the fixing eye and training the fusion faculty by developing the brain centers; training the muscles of the eyes when defects exist, and operating when the above fails.

*Two essential conditions are present in every case of concomitant squint.

First; Abnormal convergence of the visual axis.

Second: Defective fusion faculty. Other conditions may also be found. The vision of the eye which is not being used for fixation is almost invariably suppressed.

Third: There is in rather rare instances, more or less congenitial amblyopia.

Fourth: There is very often acquired amblyopia in the deviating eye as the result of neglect or improper treatment.

Fifth: There is usually a refractive error commonly hyperopia or hyperopic astigmatism.

In the normal eye with normal fusion faculty there is a desire for binocular vision. Binocular vision is formed by rays of light falling upon corresponding sensual centers of the retinue. When the two eyes have not the visual axis binocular vision is impossible and there is confusion of objects, with a tendency to diplopia. The most indistinct object is suppressed by the brain centers and this produces an amblyopia exanopsia. Where the hyperopia is greater in one eye than the other, the retinal impression is less distinct in the eye with a higher degree and there is required an extra tension in the effort to accommodate, which increases the convergence with confusion of images. The indistinct impression upon the retina allows this abnormal dynamic force to exert itself and renders the eye freer to swing in, hence we have squint as a result. Squint in these cases is at first occasional, but if the refraction is not corrected, the excessive exercise of the dynamic function causes an abnormal static convergence and squint is caused.

The proper method of examination is,

First: Get the history of the case, whether or not there are any other members of the family, parents, brothers, or sisters, who have squinting eyes; nature of the squint; the state of central fixation; the movement of each eye separately; visual acuity and the refraction of each eye.

To determine the squint eye, place a card over one eye, having the patient look at a distant object. If there is no movement of the uncovered eye, it is the fixing eye Quickly move the card to the other eye, if there is a movement, it will be the squinting eye. A more satisfactory test and the one best applied with children, is with the light reflected upon the cornea. Place the child before you with the light at its back and with the retinascope or opthalmoscope reflect the light upon one cornea. This attracts the child's attention. If the reflection is in the center of the pupil, this is the fixing eye. Shift the light to the other eye and if the reflex is not central, the eye is squinting, and by the position upon the cornea that you have the reflex, you can determine the degree of deviation.

Reviewing the various theories, we must come to the conclusion that while, according to Donders' theory, errors of refraction are responsible for a certain per cent. of squint, we can but accept Worth's theory. based upon clinical experience, that the lack of fusion power is the principal cause for concomitant squint. While most divergent squints are myopic and convergent are hyperopic, and also where squint is permanent, the squinting eye has a greater error of refraction than the fixing eye; yet we find a certain degree of amblyopia in this eye with an inability to fuse objects with the fellow eye.

We can but give some credence to Donders' theory, as it is essential to correct all refractive errors, or we would not get results from our fusion training. To substantiate this theory, in most cases where strabismus is present in eyes with a total loss of sight or where corneal opacities exist, there is a tendency to divergent squint.

This brings us to the line of treatment which should be followed up for correction.

I. The correction of all refractive errors and in connection with this, the training of of the fusion sense.

II. There are some cases in which we have binocular vision where eyes are brought to the same focal axis and in these cases the correction of refractive error, allows the muscles of co-ordination through relief from extra stimulus of the accommodative centers, to keep the focal axis adjusted.

*Worth.

But there are those cases which have the power of binocular vision and which will require the fusion training of the defective eye.

A number of methods are used for this — example:

1: Worth's amblyoscope.

2: Stereoscopic charts, etc.

3t Also by atropizing the fixing eye and forcing the use of the squinting eye, the vision is developed and binocular vision can be cultivated after the fusion sense has been developed.

Unless these amblyopic eyes are trained, we will have a complete, or almost complete, amblyopia exanopsia.

Acidosis Following Chloroform Narcosis: —Report of a Fatal Case.

By J. F. Patterson, M. D., New Bern, N. C.

By reporting this case of Acidosis following chloroform anæsthesia I hope to impress upon the Medical Profession one of the dangers of chloroform as an anesthetic, a danger which is often overlooked and disregarded, for many cases of post-operative deaths are due to this condition and not to other causes as supposed.

History—L. L., a strong sturdy lad of nineteen years, was seen upon the morning of July 31st, with the history of having been taken sick the night before with abdominal pain followed shortly by nausea and vomiting. When seen he presented all the symptoms of catarrhal appendicitis, temperature 100° F., pulse 90. He was placed upon the Ochsner treatment—by night all the symptoms were milder and the attack appeared to be resolving. The following morning, August 1st, unknown to any one, he arose from bed, walked to a restaurant and ate a plate of broth. In a few hours he was again taken sick with abdominal pain followed by nausea and vomiting; when seen the local symptoms of appendicitis were marked, temperature 101° F., pulse 94. He was removed to the Hospital for a section but this was postponed for the reason that his symptoms ameliorated markedly in a few hours and an interval operation was decided upon. The Ochsner treatment was continued. From this date until August 3rd he was free from temperature and pain—but on the morning of the 3rd a mass about 6 C. M. in diameter was detected in the region of the appendix. Preparations were made for operation the following morning.

Operation performed at 11 a. m. August 4th, Chloroform Anesthesia. Appendix was found greatly thickened and bound down by strong adhesions, however it was removed with little difficulty. Wound was drained with gauze. Several times during the operation the anaesthetizer remarked upon the large amount of chloroform necessary to keep the patient asleep. Patient was returned to the ward in excellent condition and reacted nicely from the operation.

At 4.30 p. m. he became nauseated and vomited a small amount of a brown fluid, again at 7.30 p. m. he vomited a similar fluid, also at 8 p. m. After each attack of emesis he complained of great burning in his stomach and throat. At 8.30 p. m. he was given hypodermically morphia, gr. ¼, and atropine gr. 1-150, as a result he rested well until 4 a. m. when his nausea returned and vomiting of acid fluid every half hour or so during the day, otherwise his condition was excellent, abdomen flat, no signs of any surgical complications whatever. During the day his pulse varied from 88 to 110, temperature remained around 100° F. An attempt was made to give powders of calcined magnesia, grs. 10, and charcoal grs. 20 every two hours, none were retained, in fact water was regurgitated as soon as swallowed.

August 6th. Condition practically the same as that of day before—incessant nausea, vomitus however contained coffee-ground particles. Abdomen flat, no signs of peritonitis nor obstruction. Wound was examined and found to be healthy, drainage was removed. Pulse and temperature about the same as the day before. Conjunctiva slightly yellow—calomel, gr. 10, was given and retained by being preceded by a hypodermic of morphia, gr: ¼, and atropine, gr. 1-150; at 7 p. m. a low soapsud enema was given and followed by excellent result.

August 7th. Patient markedly jaundiced and restless; at times delirious; regurgitation every few minutes of a blackish fluid which seemed to contain blood. Petechiae noticed upon his back—pulse in the morning varied from 118 to 130. At 11 a. m. stomach was washed out with a bicarbonate of soda solution. A soapsud enema was followed in a few minutes by a large evacuation. Inhalations of oxygen were given for fifteen minutes of every hour. Abdomen flat and no local abdominal symptoms. During the day his pulse increased in frequency, coma became more marked until 2 p. m. when he commenced to have tonic convulsions every few minutes. At 4 p. m. seven hundred C. C. of blood were removed from the left median basilic vein, while an infusion of a sodium bicarbonate solution, 1 dram to 500 CC of normal salt solution was made into the right median basilic vein. For a time his convulsions were controlled, however his pulse increased in frequency, temperature rose until just before death, which occurred at 6.30 p. m., when his

pulse was 160 and temperature 105 3-5° F.

Urinalysis. Specimens of urine obtained after operation were dark in color, high in specific gravity, acid, and showed the presence albumin, acetone, diacetic acid and bile, with granular casts.

Acidosis following Chloroform Narcosis is the result of a perverted metabolism, due to a lack of oxidation of the fats and proteids, resulting in the accumulation of an abnormal amount of the acetone bodies; viz: B-Oxybuturic acid, diacetic acid and acetone in the blood. This excess of acid bodies is due mainly to an excess production and only partly to diminished excretion. The symptoms do not depend so much upon the acetone as its precursors. In normal metabolism B oxybuturic, by oxidation, is changed into diacetic acid and the latter into acetone.

B-oxybuturic acid: CH_2 -CHOH - CH_2 -COOH.

Diacetic acid : CHCO - CH_2 -COOH

Acetone : CH_3 -CO CH_2.

But as a result of the perversion of metabolism there is not the complete change of B-ovybuturic acid and diacetic acid into acetone.

Why chloroform should cause this acidosis there is a great difference of opinion. Van Noorden[1] does not believe it to be due to the chloroform but to the withdrawal of carbo-hydrate diet before operation, and he states that acidosis only occurs in those cases which have been upon a starvation diet free from carbo-hydrate for several days previous to operation. This, while true in my case is hardly tenable for the reason that it is not true in all of the cases reported, and again if it was true, this acidosis should follow all forms of anesthesia and not chloroform alone, He bases his statement upon the experiments of Hirchfield[2] who found that in healthy and fasting subjects the appearance of acetone bodies in the urine was due to the removal of carbohydrate from the diet. While this may be the cause of other varieties of acidosis it is not of that which follows chloroform anesthesia. It however is a contributory cause undoubtedly.

Young and Williams[3] believe the acidosis to be due to some disturbance of the gastro-enteric tract or sepsis.

The most satisfactory explanation is that of Well[4] in which he states that chlor6form has a peculiar affinity for the protoplasm of the liver cells, destroying the oxidizing enzymes of the liver cells and not inhibiting the autoly tic enzymes and lipase of the cells.

Sippel[5] seems to think the condition to be due to toxines which results from altered circulation, and to support his statement records two cases where the condition occurred in operations for torsion of the pedicle of ovarian cysts, and two cases of strangulated hernia of the omentum. His statement is not sustained by facts.

Symptoms. The onset usually arises from twenty-four to forty-eight hours after anesthesia, in my case the onset was within five hours, which was unusually early. Williams and Becker[6] report a case in which symptoms commenced on the fourth day, and Hysett[7] one, one hundred and fifty hours after operation.

The first symptom noticed is a feeling of distress followed shortly by burning in stomach and throat, incessant nausea and emesis every half hour or so. The vomitus at first being clear and yellowish, later containing blood in the form of coffee-ground particles. Jaundice usually appears on the second day, first noticed on the conjunctivae, later the skin and usually becomes intense. About the second day nervous symptoms appear and become pronounced; great restlessness, twitching of muscles of face, delirium, stupor and coma. And in the fatal cases, just before death, convulsions—the "Epilepsia Acetonica of Von Jackson[8].

The pulse is increased in frequency and in severe cases becomes as rapid as 160 to 170 per minute.

The temperature usually remains around 100° F. until just before death when it reaches 105° F. and often higher.

The urine is scanty in amount, dark in color, of a high specific gravity, acid in reaction, and contains acetone, diacetic acid, B-oxybuturic acid, albumen, bile and granular casts.

Pathology. Howland and Richards[9] in their experiments on dogs, found that the first changes are fatty ones in the intermediary zones of the liver followed by a necrosis: which also extend to the center of the lobules, so that all the cells of the liver become necrotic. They also found hemorrhage extravasation in the liver substance. The omentum and mesentery also showed fat necrosis. The mucous membranes of the gastro-intestinal tract were congested as also was the serous membranes.

Wells[10] in the autopsy of his case found the liver to be reduced in size, flabby and yellow. Microscopically the centres of the lobules showed necrosis, the periphery fatty degeneration. Williams and Becker[11] found the same liver changes—there being no pathological lesions in the kidneys, pancreas, adrenals or spleen.

Treatment. The treatment of this condition can be discussed under the usual heads of prophylactic and curative.

The prophylactic methods are the import-

ant ones for the curative are usually futile.

Prophylactic. Never employ chloroform as an anesthetic in a case which has been deprived of carbo-hyduates for several days previous to operation. This covers the present day Ochsuer treatment for appendicitis.

Always give carbo-hydrates in some form the day before chloroform anesthesia. Beddard[1,2] advises dextrose by mouth, or a rectal enema of a ten to twenty per cent. solution. I should prefer to give oat-meal per mouth.

Curative. The lavage of stomach with a solution of sodium bi-carbonate. Carbohydrate diet. Intravneous infusions of a solution of carbonate of soda 35 gm. to 1 liter of water. Inhalations of oxygen.

Conclusions. Acidosis following chloroform Narcosis is due to fatty and necrotic changes in the liver cells, with resulting perversion of metabolism.

That chloroform is a dangerous anesthetic and should never be the one of choice: and only should be used in cases which contraindictæ the other anesthetics.

That chloroform should never be given to any patient in whose urine there is diacetic acid.

That in every case in which chloroform is to be used, it is the duty of the surgeon to see that the patient the day before operation has ingested carbo-hydrates in some form.

Elks Temple, Rooms 201-204.

References:

1. Disorders of Metabolism and Nutrition.
2. Arch. Exp. Path.
3. Boston Medical Journal, 1-23-1909.
4. Archives of Int. Medicine, July, 1909.
5. Arch. fur Gynaekologie, Berlin.
6. Journal, A. M. A., May 8th, 1909.
7. Proceedings Michigan State Medical Society, 1909.
8. Arch. f. Kinderheikunde.
9. Journal of Exp. Med. New York.
10. Archive of Internal Medicine, Chicago.
11. Proceedings Rochester Path., Soc., February 18th, 1909.
12. Lancet, London, March 14th.

The Hypodermic Treatment of Malaria.

By George E. Kornegay, M D., Cleveland, Miss.

The hypodermic treatment of malaria is so simple and gets such brilliant results that I cannot understand why it is so seldom used. Quinine is pre-eminently the treatment for malaria, and to get the most satisfactory results is to give it in a way that it will do the most good in the quickest time—the hypodermic way.

The physician should, and usually does, try to get his patient well at the earliest possible moment. If this is his ambition, then he will take kindly to the hypodermic method.

In our Southland malaria predominates. I believe that more time is lost from business as a result of malaria than from any one disease in the lower South. If we employ the method I shall describe, this condition will cease to exist.

In the lower South the country doctor will appreciate the advantages of this method, for it is he who sees and treats the most virulent forms of malaria. Unfortunately the time of gathering the cotton crop is the scene of our most strenuous efforts. Malaria takes this time to strike the laborer on the plantation. Their sickness means a loss of money to themselves as well as the landlord. Cotton is king indeed and "waits for no man." If we can save the fever-stricken laborer three days, or even one, in shortening his sickness, then we have paid three debts, to the patient, the planter, and the world that deals in cotton.

We may expect the following from the hypodermic treatment: (1) Time. Patient can return to work and the physician to his office to rest; for he needs it during the busy season. (2) If commenced early in the disease there is no danger of his losing his patient. (3) An absence of tinitus aurium and other nervons symptoms. (4) No disturbance of the stomach, a thing to be considered in the old way, especially if the patient is a child or a very old person. (5) Worry. No danger of a return of the original infection.

A great many physicians admire this treatment, but are afraid of it on account of the "terrible" abscess that sometimes follows an injection of quinine. With the tablets of quinine that can be gotten from any reliable drug house, combined with a fair knowledge of sterilization, there is no excuse for an abscess.

I treated last shimmer fifty-two cases of malaria by this method. Some of these were given one and two hypodermics a day, and out of over a hundred injections I was afflicted with three abscesses. I deserved every one of them. That you may profit by my ignorance I state the cause.

The first abscess was due to inserting the needle between the layers of the skin. Given in this manner the quinine acts as a powerful irritant and will always produce an abscess. In the second case I used pump water and in the third I tried to bring into solution fifteen grains of quinine in the fluid contents of my syringe. I had a solution of a ropy consistency that was not ab-

sorbed and produced the ugliest abscess I have ever seen.

It is folly to attempt to dissolve over ten grains of quinine in the amount of water that the ordinary syringe will hold. To attempt a larger amount means a ropy solution that is hard to inject and too irritating.

I am using the method described below. Since its adoption I have escaped the quinine abscess.

(1) Clean the part selected for injection with soap and water. Do not hesitate to scrub well, you will be suprised to find how much dirt you will get off of the most aristocratic arm. Follow this with alcohol and instruct your patient to keep his hands off of the place you have sterilized. Some patients seemingly cannot resist the temptation of rubbing the place in spite of your directions. Cover with a piece of gauze and it will save you lots of time. (2) Cleanse your syringe by filling with alcohol and then with sterile water. Wipe the needle with a cloth saturated with alcohol and let the needle remain in this cloth while you are preparing your quinine solution. (3) Clean the vessel you are to use for holding solution with alcohol and sterile water. Put in the number of tablets you have decided upon. Fill syringe two-thirds full of water (sterile) and spray tablets several times until they are entirely in solution. If it is convenient heat solution until perfectly clear. After expelling air from the syringe wipe the needle with alcohol and sterile water. I would suggest especial care here, as any of the quinine solution on the needle will act as an irritant to the wound the needle makes in passing through the skin. (4) I usually give the hypodermic injection in the posterior part of the arm, the place does not matter so much as the technique. Lift the skin well and let the fluid flow under it. Do not inject into muscle, but deeply under the skin. Allow the needle to remain a few seconds and be sure that the contents of the syringe have been expelled. Then exert a little pressure at the point of puncture and withdraw the needle gently. Do this and you will not through suction bring any fluid with the needle, thus lessening the chance of the solution irritating the skin wound. (5) Seal the puncture with iodoform collodion (10% iodoform).

Experience has taught me that the very best time to give an injection is during the decline of the chill and not as I once thought when the fever is at its highest. In several cases where I have had an opportunity to administer quinine during the decline of the paroxysm I have not had to give further antimalarial treatment. I would not advise doing this, however, as it is decidedly better to instruct patient to take 10 grains of quinine four and two hours before the next chill. In not giving further treatment (antimalarial) my motive was to determine the effectiveness of the hypodermic treatment. Ten grains given during the decline of the first chill (hypodermically) has always in my cases prevented a return of malaria on the next chill day, but it may appear later. If a second hypodermic is given on the next chill day an hour before the expected chill there is little chance of the patient having a paroxysm, if at all it will be of little severity. In those cases where I have given it during the first attack I have not had to repeat the injection, neither has the patient had a return of any symptom of malaria. While I am enthusiastic over this treatment, I do not wish to be understood as saying that after a hypodermic injection he is free or immune from malaria the balance of his life, not at all; but I honestly believe that he is free from the original infection, if after the second injection he misses the second chill. The patient is of course susceptible to another attack, but it will not be from the original malarial plasmodia, and must be bitten by another malaria-infected mosquito.

In the treatment of the Aestivo-autumnal type I usually give two hypodermics a day, one when the fever is at its highest and vice versa. In giving it while the fever is low we are able to prevent a troublesome hyperpyrexia and destroy numbers of plasmodia. I think the greatest benefit is seen when given during the decline of the paroxysm. Quinine is described in the text-books as having some antipyretic action, though feeble compared with the coal tar products. This is not true when given hypodermically. You will be pleased with the rapidity with which the fever leaves the patient after a hypodermic of quinine. I know the greatest destruction of plasmodia results when given at this stage (decline of paroxysm) for they are more susceptible to the action of quinine. In this class of malaria 10 to 15 grains should be given twice a day. The addition of one-eighth to one-fourth of a grain of morphine aids in the comfort of your patient.

I am reminded of two cases which I think tested the value of this method. The first case was that of a negro woman who was suffering with the Aestivo-autumnal type (the so-called swamp fever or slow fever). She gave a history of two weeks of fever without a chill. A blood examination revealed crescents. Patient had been taking twenty to twenty-five grains of quinine sulphate a day by mouth for two weeks and was unable to continue the treatment on account of nausea. Other patients at this time prevented me from seeing her but once a day. The fever was at its highest in the

afternoon, hence I decided upon that time for my visit. I gave her a hypodermic Monday, temperature at this time 105° F. Each day at or about the same time this treatment was given and I noticed that the fever was lower at each visit and on Friday of the same week she was entirely free of fever and has not had a return. No antimalarial treatment was given other than that described, neither has any form of malarial treatment been given since and she has been free from malaria. I have examined her blood several times and have been unable to find a single plasmodia.

The second case is one of a series of two cases of comatose malaria that I have treated. The first case died after thirty-six hours. (At that time I was not familiar with the hypodermic treatment). I had been treating the patient's children and was giving one of them a hypodermic when he suggested that I had better give him one too. Not having any more tablets with me I promised to give him an injection the next morning when I returned. I was called at an unearthly hour the next morning to see the patient. His wife explained to me that he had been having two chills a day, and that soon after I left the house he had one chill after another, five in all, finally becoming unconscious. I immediately gave fifteen grains of quinine and one-fourth of a grain of morphine. Patient remained in this condition until 12 m., when the stupor passed away and he was able to talk intelligently. Fifteen grains were given that afternoon about an hour before his next attack. I was again aroused at an early hour to see the patient. Patient's wife stated that he was free from chills until 3 a. m. when he had a severe chill, lapsing into a comatose state. At these times patient was prevented from doing bodily injury by force.

This treatment was continued every day, the patient's condition improved, though these attacks of unconsciousness continued but were of shorter duration. After a week he was entirely free from fever and made an early recovery. Patient showed signs of mental disturbance for a few weeks, but this finally passed away.

The dose must be decided upon by the physician and may range from one-half to fifteen grains. In the treatment of very young children, especially where the stomach is very sensitive, this is the treatment par excellence.

I have lost cases as a result of malaria, probably every doctor has had this misfortune who lives where it is present. I have had some severe cases since I commenced the hypodermic treatment without a death. I have been in consultation with physicians who had tried the oral administration in heroic doses without success, and each time a hypodermic of quinine always caused a rapid improvement.

The method of upsetting a patient's stomach with a conglomeration of capsules, tablets and tasteless preparations of quinine, complicated with the uncertainty of action, must eventually pass away. Medicine is getting on a scientific basis, and it is certainly the opposite of science to depend upon the capsules and tablets in a weakened condition of the gastric juices. The tablet or capsule may not be dissolved, or if we are so fortunate as to bring them into solution we do not know how much is absorbed, besides the patient is in a position to infect other mosquitoes, thereby increasing the disease.

With the hypodermic method we know just exactly how much quinine we are getting into the blood. We can, at a few minutes' notice, throw as many grains of quinine into the blood as we desire; on the other hand if we employ the old way, first we must wait until the calomel has acted before the quinine is given, and of course the malaria plasmodia "makes hay while the sun is shining" and produces a few million plasmodia. To destroy the malaria plasmodia, give your hypodermic when you first see the patient, kill them while they are young, *do it now*. If you have any old fashioned notions about calomel or custom requires you to give it, why give it; you need not tell the patient that you are giving him a hypodermic of quinine.

Treatment of Consumption.*

By W. H. Coffman, M. D., Richmond, Va.

In the treatment of consumption there are two objects, the accomplishment of which are desirable and, granting that the case is seen before it is in too advanced a stage, both objects should be attainable. The first is to relieve the patient of his symptoms and arrest the progress of the disease; the second is to cure him of his tuberculosis. The first is to be accomplished by the general management of the case, by attention to daily habits, diet and exhibition of drugs as may be necessary; the second by the use of culture products.

General Management.—The question is often asked, is it best to tell the tuberculous patient that he has tuberculosis? I think it is essential for him to know it; because there are very many cases in which, in order to effect a cure, the patient may be compelled to make many sacrifices, either

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financially or the giving up of life-long habits. In order that he be willing to make this sacrifice, he must fully realize the gravity of his condition. Of course, tact must be used in bringing this knowledge to him so as to, as much as possible, reduce the mental shock. I have not seen any patient who was made worse on being told he had tuberculosis.

Given an obedient patient, in moderate or good circumstances, who has gotten over the first fright of the knowledge of his condition, I think it is probable that he can be treated to better advantage in his own comfortable home than almost anywhere else, believing, as I do, that climate is almost a negligible factor in the case of the patient who will do as he is told.

He should have a room, preferably a large one, with several windows through which the sun may shine at least several hours a day; or better, he should sleep on the porch or veranda, or in a shack in the grounds of his home. His waking hours should be spent in the open air, indulging in moderate exercises; or when this is not advisable, because of high temperature or rapid pulse, he should be on the veranda or in the yard on a reclining chair or cot. If he spends his nights in his room, the windows, of course, must be kept wide open.

While, as I said before, the majority of consumptives are as well, or better off, in their own homes than elsewhere, there are a few individuals who either will not or can not follow directions at home. These it is, of course, best to send to a resort for consumptives where they will have example as well as precept, and will be away from the influences which at home prevented them from following out the treatment as it should have been.

Diet.—As to diet I, personally, believe that it should be "mixed"; that is, of such food as comes on the table of the ordinarily well-to-do, rather than a preponderance of any one variety of food, such as milk and eggs. At the same time, I think the patient should use milk to wash down his food instead of water or coffee, because the milk, of course, has a large caloric value, while water and coffee have practically none. Raw eggs should, I think, be kept as a reserve. For instance, if by reason of lack of appetite the patient has not been able to chew and swallow what he knows to be a sufficient meal, he may take two or three eggs to finish out because they readily slip down without being chewed.

In those cases which are complicated by tuberculous laryngitis of such degree that deglutition is painful, the pain may be greatly relieved by spraying the throat before meals with a solution of heroin hydrochlorate, three grains to the ounce of water. The local anesthesia is not so great as that from cocaine, but it is sufficient to last several hours.

Because of the fact that people who are over-fed usually have sluggish bowel movements, it is well to have occasional doses of castor oil or senna to empty the colon. In those who are habitually constipated, the proper remedies must be used. In case of low stomach motility, it may be necessary to use lavage or massage once a day in order to remove material left over from the day before. In case there is diarrhea, it must, of course, be controlled. This can usually be accomplished by the regulation of diet and the occasional use of high enemata.

Fever and Chills.—As the high temperature in consumption is due to the absorption of toxic materials from the local lesion, and as exercise increases the amount of this absorption, it is, of course, plain that in fevering cases the exercise should be limited, and, if necessary, the patient put to bed and kept there until the fever lessens.

Also, as it is a daily observation that high temperature in consumptives is preceded by chills, it is necessary to eliminate or reduce these chills. This chill or chilly sensation appears in the majority of patients at a fairly definite time of day. This time should be noted when found; the patient should be put to bed and covered up to the neck, with one or more hot-water bags at his feet. This should be done about an hour before the expected arrival of the chill and the patient kept so until about an hour after the chill should have passed. In case the fever is not lessened by the rest in bed and the relief of the chilly sensation, recourse must be had to cold or tepid baths and antipyretics. The least harmful of this latter is probably pyramidon. This may be given just before or about the time that the fever usually rises, in doses of two or three grain capsules, repeated once or twice if necessary.

Night Sweats.—As in the vast majority of cases that have night sweats they are preceded by fever, it is evident that in order to cure them the fever must be relieved. This can usually be done by the measures outlined above. As a temporary remedy, camphoric acid is probably the best because the least harmful—40 to 50 grains to be given in 5 or 10 grain capsules between six and nine in the evening. This usually relieves the sweats and, besides, is a good general tonic, its tonic effect lasting in most cases as long as 24 hours.

If the sweat has been severe, the patient should change his wet for dry night clothes,

first having been well rubbed, preferably by some one other than himself.

Pulse.—In those patients in whom the pulse rate is ordinarily all right, but in whom exercise sends it abnormally high, the exercise should be so limited as not to produce this phenomenon. In those cases in which the pulse rate is continuously too rapid, the patient must be put absolutely to bed to remain until he is well back towards normal.

Too much stress cannot be laid upon the necessity for keeping close watch on the pulse rate, as when the heart is once overstrained the patient has lost the best friend he may have in his fight.

Cough.—Cough is, in many cases, the distressing feature of the disease; but, fortunately, at least partial relief is usually attainable. The patient should be instructed to use his will power to repress the cough, not to give way to his desire, but hold it back as much as possible. The amount of relief that may be experienced by this simple procedure is sometimes wonderful, especially in very nervous patients who are so apt to have a hacking, unproductive cough.

Sometimes excessive coughing is due to disease of the throat, nose or ear; and when such disease is found and relieved, the cough disappears.

The ordinary cough of consumptives may be relieved by drugs, and of these heroin is probably the best, because of its slight systemic effect and consequent slight danger of "habit." One-twelfth to $\frac{1}{6}$ grain, two or three times a day, is usually sufficient. Some of the cases that do not yield to heroin may be benefited by the use of codein in $\frac{1}{2}$ or one grain doses; but there are few cases which do not yield to any of the mild remedies. Those it may be necessary to put to bed and give morphia hypodermically.

Sputum.—It should be seen to that patients destroy their sputum. It is sometimes hard, however, to make them do so, but if it is impressed upon them that a careless disposal of sputum may cause them to have a reinfection themselves, they usually become models of care.

A patient who is in bed should have a paper spit-cup in a metal frame, the paper part to be frequently renewed and the old ones burned. He should also have paper napkins at hand, into which he may cough and with which he may wipe his mouth, to be at once put into a paper bag kept for that purpose, the paper bag to be burnt without removal of the handkerchiefs.

Patients who are going about should carry collapsible paper sputum cups into which they may expectorate. These patients, when at home, may use cuspadores in which there is a little water, and these are to be cleansed daily with boiling water. They should also keep in one pocket a supply of paper napkins and in another a paper bag into which the napkins can be placed after use and later burned without being handled a second time. Female patients, when out of doors, may carry their sputum cups, napkins and paper bags in their handbags.

The necessity which the consumptive is under for holding something in front of his mouth when he coughs is very obvious when we remember that the danger from the consumptives is not in the unsightly gobs of sputum, which an ordinarily clean person will take care of anyway, but in the fine spray which flies from the mouth when coughing, which carries tubercle bacilli as well as does the sputum, and which, unless something is held in front of the mounth, is deposited on the clothing, carpets, furniture and bedding, there to be the source of infection for others.

Hemorrhage.—A patient who is bleeding freely should be put in bed as soon as possible, and should be propped straight up, comfortable, with a bowl or other large receptacle, containing a little water, in his lap, so that when the gushes of blood come he may be able to dispose of them with the least possible exertion. He should be kept in bed for at least ten days after the bleeding is over, because it takes about this time for the organization of the clot which is nature's means of stopping the bleeding. He should have a small hypodermic of morphia to control the cough and the nervousness from which so many bleeding patients suffer.

Of drugs, nitrite of amyl is probably the only one that has any immediate effect on pulmonary hemorrhage. Calcium chloride is said to be useful in controlling the tendency to bleed. It may be given in 5 grain doses every three hours, until five or six doses have been given; then, three times daily for about three days.

Many cases may be controlled by lowering the blood pressure. This may be done by giving large doses of epsom salts; also by the use of such remedies as veratrum viride.

In view of the fact that any patient with an open cavity is liable to bleed, it is well to have an occasional record of his blood pressure, so that when he does bleed you will be in a position to know when you have reduced the blood pressure enough. Fifteen to twenty points are usually sufficient. There are, however, a few cases in which veratrum viride does no good, that are promptly checked by the use of adrenalin. It is probably well to restrict for one

or two days after a hemorrhage the amount of the patient's rational food, or, at least, the fluids.

Pleurisy.—Pleurisy may usually be controlled by putting the patient to bed and applying heat. Sometimes, it may be necessary to limit the excursions of the lungs by applications of adhesive strips. These should be placed over the lower part of the lung of the side affected, extending from the lower part of the sternum to the back bone. There are occasional cases in which it is necessary to use a hypodermic of morphia.

Culture Products.—A remedy, which we can reasonably hope will be of benefit in the treatment of a given disease, should, we will all agree, be given a full and fair trial. In consumption, culture products is such a remedy. The fact that it does increase natural resistance to tuberculosis and, at least, gives a partial immunity against it, seems to me so well established that a multiplication of reference is unnecessary.

In this country, most of the private sanitariums have been using it for years, and claim that their results are many times better than before they commenced its use, notably the Winyah Sanitarium at Asheville, N. C., and the Pottenger Sanitarium at Los Angeles, California. Many of the State and city institutions also, such as the Henry Phipps Institute and its branches and the Saranac Lake Sanitarium.

In the August, 1906, number of the Journal of the American Medical Sciences, Dr. Trudeau states that he has used culture products continuously since 1891. His tabulated results show that in from 3 to 13 years after discharge, 25 per cent. more of his tuberculin-treated cases were alive and well than those treated during the same period with tuberculin.

In England, many favorable reports have been published, notably those of Wright, with which you are all familiar.

In Germany, out of nearly 100 institutes for the treatment of tuberculosis, I am told that there are only two which do not use culture products.

When we remember that these institutes are practically kept by patients sent to them by the industrial insurance companies, we must think that the remedy is useful, because these insurance companies have found out that by having their tuberculous risks treated with culture products they have been saving many dollars.

Those who wish to make a trial of culture products must not be deterred from so doing because many of the leading men in tuberculosis work are not using it; for there are some reputable physicians who do not believe in rabies, some others who are not yet fully convinced that vaccination is useful as a preventive of small pox, and many of us were very slow in taking up the use of diphtheria antitoxin.

Treatment of Severe Burns.—Pels-Leusden (Deutsche Med. Wochenscrift) believes it important to disinfect the burned area as thoroughly as in preparing for an aseptic operation. In burns of small extent this may be done under local anesthesia; in those covering a large surface, under spinal anal gesia or ether. Blebs are to be removed and the burned part and its surroundings cleansed for ten minutes with hot water, soap and brush, and then washed for another two minutes with alcohol and sublimate or sublamin solution, 1:1,000. It is then covered with a guaze compress and an abundance of absorbent cotton, over which is placed another layer of non-absorbent cotton. Pain is to be relieved with morphin, although this is rarely necessary under the use of such a dressing. As soon as the cotton becomes saturated with serum it should be removed and renewed, the gauze being left in place and this is to be under the strictest asepsis. In the course of ten to fourteen days the dressings, including the gauze compress will become detached of their own accord and in burns of the second degree epidermization will take place rapidly and completely. The application of iodoform gauze directly to an extensive burned surface is dangerous, on account of the risk of absorption. This method, which was originated by Tschmarke, has only the drawback that because of its painfulness it requires to be carried out under anesthesia, but this is more than compensated for by the rapid curative results.

The Bactericidal Power of Living Cells.

A. Albergo-Berretta, after experiments on animals by injections of emulsions of bacteria to ascertain the power of the living cell to destroy bacterial life, gives us the following conclusions: That the uninjured tissues as long as they preserve their vital properties are able to destroy all microorganisms that come immediately in contact with them. The microorganisms only find a condition adapted to their action in the presence of injuries to the tissues, or in conditions in which their vitality is lowered. In the destruction the phagocytes take an important part, but they are not the only factor in this destruction of germs. There are substances already contained in the protoplasm of the tissues which kill the germs, and the cells have the power of elaborating such substances when they are needed.—La Sperimentale.

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EDWARD C. REGISTER, M. D., EDITOR
CHARLOTTE, N. C.

PELLAGRA AND PELLAGRAPHOBIA.

The Tennessee State Board of Health, at a recent meeting in Nashville, decided to order the isolation of all cases of pellagra now existing or that may be discovered in the future. The cities or counties in which such cases are found must meet the expense of such isolation. This Board is reported to have expressed the opinion that the disease is communicable. In the above report we have yet another evidence of the length to which man is swayed by that which is novel and bizarre. We do not wish to be misunderstood in this matter, but it is not difficult to see that in the case of pellagra there is manifest the world-old tendency of humanity to fly to extremes. Doubtless it is to the credit of the medical profession—perhaps it is not—that so widespread and profound a sensation has been stirred up throughout the length and breadth of this land of ours. Perhaps, also, he who has the temerity to raise a protesting voice will be branded as iconoclastic and cynical. But it is a fact, and we believe that successful contradiction is improbable, that the impression made upon the minds of the laity has really created, and added to the already long list, a new phobia. The writer has recently observed with considerable curiosity the frequency with which pellagra becomes a subject of conversation whenever two or more people come together and talk as possible. Invariably the discussion turns to this disease and one hears expressions which, in some cases, amount to evidences of absolute terror. It is a fear having its origin in ignorance, and while no one can be blamed because of the ignorance, still it does seem so unnecessary, so fruitless, and one might even venture to say, so pernicious that such sensationalism has been permitted to develop in regard to a disease which, at worst, is comparatively rare, even in the South. As we have said above, it is very probably our ignorance concerning the cause and nature of the disease, and our apparent entire helplessness so far as curative measures are concerned, that have aroused the emotional side of the people. Complete knowledge of the pathogenesis of the malady and a consequent knowledge of what to do for the patient would lead to a calm and sane attitude of mind, and breed a feeling of security which ignorance makes impossible. However, we do not at present appear to have drawn any nearer a solution of the problem than European sanitarians were a quarter of a century ago.

Not for one moment would we seem to express our disbelief in the existence of pellagra in the Southern States. We know it is here and we believe likewise that it has been prevalent for a number of years. Furthermore, we are satisfied that the disease is uniformly fatal, and that great suffering results to the victim in many cases before death comes. Let it be said here and now, however, that the diagnosis is by no means always quite easily made, since there are other diseases which bear a more or less close similarity. In our desire to discover cases there is doubtless too great a tendency to jump at conclusions without due consideration. In other words, our enthusiasm is apt to obscure our judgment. It is not with any intention of questioning the abilities of our brother doctors that these things are written, but merely to sound a note of warning: it isn't that we would attempt to throw an obstacle in the way of progress, but we would plead for a somewhat saner attitude. No one would attempt to dispute the proposition that other diseases like typhoid fever and tuberculosis have produced, are producing and potentially will produce infinitely more suffering and loss, both financial and vital, than pellagra does. In any one community there are probably scores of cases of tuberculosis whose outlook is quite as hopeless as that of any pellagrin, notwithstanding the fact that science seems to have found a remedy for the former. And in the case of typhoid fever —a disease that is always with us, potentially if not in fact—the people who suffer and die outnumber many times the victims of pellagra. In the case of both typhoid fever and tuberculosis, the cause and pathogenesis of the diseases are—one might almost say—well understood. Preventive treatment, at least, is entirely possible in both and a fair amount of success is promised, so far as curative measures are concerned. Yet practically no space is devoted by the lay papers to popular or sensational discussions concerning these diseases. They are far too common, we have made our bed with them for too many years for us longer to feel any fear. Our souls are not thrilled with horror at the bare mention of the disease; one does not hear them discussed in every social gathering—from bridge whist parties to public receptions. On the other hand one rarely looks through the columns of a daily or weekly paper published anywhere in the country that something isn't found about pellagra. Apparently every doctor who thinks himself the discoverer of a pellagrin, or who signs the death certificate of a pellagra patient finds himself

locally notable because of his connection with the case. For some reason he willingly or unwillingly becomes a party to the spreading abroad of the news that such and such a patient is suffering with or has died of the dread disease "with which medical science finds itself utterly unable to cope, since no known remedy has so far been found which seems to do those sick with the malady any good." Not satisfied with a simple account of so unusual an incident the reporter in many cases takes occasion to reiterate the available statistics concerning local cases, probably calls attention to its widespread prevalence, takes advantage of the opportunity to rehash the various theories of its etiology and perhaps adds the cautiously expressed theory of the eminent doctor whose case is reported, or calls to mind the essay of some other local authority on the subject. In addition one sees occasionally the brazen statement that the doctors of a certain city have deliberately set about discovering the cause of pellagra. With sounding brass and blare of trumpets to herald the wonderful news, case after case is found and theories galore are published abroad. Alas! the great discoveries in the world of science have been made by the quiet workers—those who were content to work and to find out the truth ere it was told.

All these things, we contend, do no good, but, on the contrary, exert an influence which is inimical both to the lay mind in that it tends to and actually does produce pellagraphobia—if it is permitted to coin a term for the occasion, and to the successful investigation of the pathogenesis of the disease, in that the constant iteration and reiteration of ignorance and inability on the part of the doctor cheapens his work and produces a skepticism in the popular mind as to the work of the profession. People do not like to think they are being experimented upon; the very minute they come to believe they are being made the subject of experiment their confidence vanishes and another man gets the job of treating them. People can be fooled, told they have something else, but it is absolutely utopian to hope to obtain the consent of more than a very few to submit to a proper investigation of the disease so long as the knowledge is spread abroad day after day that the doctor can do nothing. Again we desire to make our position clear. It is not that we advocate deliberate attempts to deceive people. When it is discovered that a patient has pellagra he should be told, or at least those nearly related should be told; but it is not necessary, for the sake of a little cheap advertising, to foster by public announcement a public distrust and lack of confidence which handicaps scientific investigation and, all to no purpose, scares people within an inch of their lives.

In thus giving vent to our pent up beliefs in a live subject we do so knowing and expecting to be disagreed with. There would, however, be no occasion for expressing these opinions if all were agreed, if all believed as we believe. A cool consideration of what has been said in this article should appeal to our readers, and our sincerest desire is that it may bear fruit. There are other things which might be said relating to the economic side of the question, but we deem it sufficient to have made our appeal briefly and to the point. N.

THE RECORD OF THE FOURTH OF JULY.

The annual harvest of death resulting from Fourth of July injuries is always a fruitful source of inspiration for the vital statistician. It also is a matter which gives very serious food for thought at the careless waste of human life in this "land of the free." During September the Journal A. M. A. published the seventh annual compilation of deaths and injuries resulting from the celebration of the Glorious Fourth. To us of the South these figures do not mean so much, because of the fact that there is little participation in the methods of celebration which have persisted for so long in more northern States. Nevertheless it is no less appalling when we read of the fearful sacrifice of human life which annually results from these injuries and the horrible manner in which death comes makes one shudder at the very thought.

There were 150 tetanus cases this year, almost double the record of last year, when 76 cases were reported. This is the larges number since 1903, when there were 41 cases. It is significant to note that the number of blank carttidge wounds correspondingly increased from 816 last year to 1,095 this year, and that the States having the largest numbers of blank cartridge in juries have also the largest number of teta nus cases.

Tetanus cases occurred in 25 differen States, or in five more than last year, an the same as in 1906. For the fifth consecu tive year Illinois reports the largest num ber, having 20 cases this year, 12 each i 1908 and 1907, 16 in 1906 and 20 in 190 In 1903 and 1904 Pennsylvania reporte the highest numbers. For the fourth cor secutive year New Jersey reports the nex highest number, having 19 cases this yea 10 last year, 8 in 1907 and 10 in 1906. Ohi reports 12 cases this year. Michigan an New York each had 11 cases and Pennsy vania 10.

Besides the 125 deaths due to tetanus, persons were killed by various forms of fir

works, making a total of 215 deaths, an increase of 52 over last year and 57 more than in 1906. Seventeen were killed outright this year by firearms, 16 were killed by explosions of powder, 7 by giant firecrackers, 7 by toy cannon and 7 by various causes, such as blood poisoning, by sky-rockets, chemicals, etc., while 37 were literally burned to death by fire from fireworks, many of which were caused by the so-called "harmless" varieties of fireworks.

There were 5,092 non-fatal injuries this year, or 368 less than last year. There were 16 people totally blinded this year, being 5 more than last year, but 9 less than the highest number in 1905. There were 36 who lost one eye each, 41 who lost legs, arms or hands, while 176 persons lost one or more fingers.

Pennsylvania holds the blackest record with 986 casualties, New York coming second with 898, followed by Illinois with 547, New Jersey with 488 and Massachusetts with 430.

The responsibility for the vast majority of these injuries rests with the city governments and, as the Journal says, this annual carnage could doubtless be prevented without extreme difficulty. There is evident a tendency in various parts of the country to institute measures which will lead to saner and safer methods of celebrating our national holiday. Several large cities, notably Baltimore, Cleveland, Chicago and Washington have adopted prohibitory or restrictive ordinances which have already shown their beneficence either by the total absence of accidents or by the occurrence of only a very few serious injuries.

CARBOHYDRATE METABOLISM AND DIABETES.

Many theories have been advanced to account for the common disease diabetes. None, perhaps, are able to account for all cases, for the very good reason that in all probability no one cause or set of causes could be found to be active in all cases. Our ignorance of the metabolic disturbances in diabetes has been largely due to the fact that we have not known how the carbohydrates are eventually disposed of in the body in health. Normally the carbohydrates of the food are stored in the liver and muscles as glycogen. Pavy held that part of the injected carbohydrates is converted by the villi of the intestinal mucosa into fat and carried thence by the lacteals to the blood. By a splitting off process another portion is incorporated with nitrogenous matter and carried away in the form of proteid. He thinks that only a portion of the carbohydrates reaches the liver as glucose, where the hepatic cells convert this monosaccharid into the polysaccharid glycogen. Glycogen can also be formed from the proteids of the food; and under certain circumstances sugar can be directly formed from the body proteids. In health the amount of glucose in the circulating blood ranges between 0.1 and 0.2 per cent. If it were not for the reservoir action of the liver and muscles in storing up the excess of carbohydrates after a meal as glycogen, we would have more than 0.2 per cent. of glucose in the blood, a hyperglycaemia would occur and a glycosuria ensue. In health the glycogen is reconverted into glucose, which is distributed to the muscles by the circulating blood and there burnt up, producing heat and energy. The manner in which this final combustion is effected has hitherto not been known. Cohnheim published his researches in 1903 and 1904 and threw much light on the subject. By a specially constructed press he obtained the juice from the pancreas and muscles of dogs and cats. Each juice added independently to solutions of glucose was inert. When, however, the pancreatic juice was added to a mixture of muscle juice and glucose there was rapid breaking up of the latter into alcohol and carbonic acid. Cohnheim holds that this remarkable effect is analogous to Pavlow's observation that trypsinogen is only made active for proteid digestion by being converted into trypsin by the "enterokinase" of the succus entericus. He believes that the muscles produce a proenzyme which is only made active for carbohydrate combustion by the action of another substance produced in the pancreas and conveyed to the muscles by the blood stream. He showed that the glycolytic substance produced by the pancreas is not a true ferment but a body closely related in its characteristics with other well known constituents of internal secretions, as adrenalin and iodothyrin. He also found that when too large a quantity of the juice of the pancreas is used carbohydrate combustion is retarded or even stopped. The pancreas juice is supposed to supply the amboceptors and the muscle juice the complement. The retarding action of an excess of pancreas juice is believed to be due to an over-abundance of amboceptors. According to these researches the carbohydrates normally are burnt up in the muscles, producing heat and energy by the combined action of two glycolytic bodies, one produced in the muscles and the other in the pancreas. As said above, when an excess of glucose (over 0.2 per cent.) occurs in the circulating blood a glycosuria occurs. Theoretically this may be produced as follows: By functional or organic disease of the islands of Langerhaus in the pancreas. The islands of cells probably produce a glycolytic ferment which

is necessary for the proper burning up of the carbohydrates, and the absence of which permits glucose to accumulate in the blood. This glycolytic ferment may act on the carbohydrates independently, or, as Cohnheim believes, is necessary to render active a proferment which is manufactured in the muscle cells.

ETIOLOGY OF GALL STONES.

The vast amount of attention that has been devoted to the subject of gall stones during the past decade has resulted in the elucidation of many problems regarding the pathogenesis as well as the treatment of cholelithiasis. It is generally admitted that several factors are concerned in the formation of gall stones. The most important of these are enumerated by Fitz: They are stagnation of the bile, infection of the bile passages, and unknown disturbances of metabolism included under the term predisposition. No one of these factors seems sufficient, but the combination of at least two is essential. The importance of the first two is generally accepted, while the significance of the third is doubtful, the term predisposition being perhaps more a form of speech than a demonstrated process. The importance of stagnant bile is to be recognized from the fact that infection without stagnation is less likely to be a forerunner of gall stones than when combined with stagnation. Gall stones are more likely to be found in those in whom the flow of bile is more likely to be impeded. Seventy-six per cent. of the Mayos' cases are women, in whom the stagnation is attributable to the habit of lacing, and to repeated pregnancies which lead after parturition to traction of the cystic duct from prolapse of the liver, and during pregnancy to pressure directly upon the gall bladder. In the obese and in those of sedentary habits of either sex stagnation is more likely to occur for obvious reasons. In the aged, because of the exposure throughout a longer life to various infective processes, and also because of the general muscular enfeeblement from degeneration and disuse, the flow of the bile is retarded in the bile passages. Most important of all, however, is infection of the bile carrying apparatus. Naunyn first directed special attention to this factor.

Infectious organisms, especially the colon bacillus, the typhoid and paratyphoid bacilli, the streptococcus, staphylococcus and the pneumococcus have been found with greater or less frequency in the gall bladder. Although human bile is usually sterile under normal conditions, it is claimed that if a sufficient quantity be examined the colon bacillus may constantly be found. It is an excellent culture medium, and if the flow is obstructed, bacteria readily make their appearance above the point of obstruction.

It is the more generally accepted view at present that the typhoid organism, in particular, invades the biliary passages by passing from the blood vessels within the liver with the constituents needed in the formation of bile, and thus, by a descending infection, enters the gall bladder. These organisms are capable of producing an inflammation of the biliary passages, mild or severe, of an acute or chronic nature, and the acute cholecystitis, in particular, is being recognized as a by no means infrequent complication of typhoid fever. According to Naunyn, the bacteria multiply in the stagnant bile and cause an inflammation of the mucous membrane, the cellular product from which contains the cholesterin and lime of which the calculi are composed, in addition to the pigment derived from the bile. The milder the inflammatory process and the longer its continuance, the larger or more numerous are the calculi likely to become, but for the formation of the calculus a preceding inflammation of the bile passages is necessary. Gall stones thus may arise in the bile passages within or without the liver, in the common, hepatic or cystic duct, but especially within the gall bladder.

Experiments on animals show that calculi may be produced in the gall bladder by obstructing the flow of bile and introducing bacteria into it, while the admission of bacteria without an associated obstruction to the flow of bile has no such effect. The bacteria may be admitted to the biliary tract through the circulation; for example, by inoculating the ear vein of the rabbit, or they may be injected directly into the gall bladder or bile duct. These experiments are of interest also as suggesting the rapidity with which gall stones may be formed. Concretions as large as a grain of wheat have thus been produced within six weeks; others, of the size of a pea, within four months. Our definite knowledge, however, of the rapidity of the formation of gall stones in the human subject is obtained from the operations of Kehr and of Homans, who found at a subsequent operation upon the patient that gall stones had formed around the ligature in the gall bladder. This took place in eight months in Kehr's patient. Homans emptied the gall bladder of stones in April, 1895. Symptoms of gall stones returned in December, 1896; the gall bladder was re-opened in January, 1897, and seven gall stones were found to have formed around the ligature.

DR. FREDERICK COOK, DISCOVERER.

Doubtless this Journal is not alone in feeling great elation over the fact that the first human being to have actually reached the goal of three hundred years of human endeavor was a plain every-day medical man. Yet we do not mean that, for Dr. Cook is more than a plain, ordinary being. There is something extraordinary about the man who was able to do so wonderful and, till that time, unique a stunt as was accomplished by this Brooklyn doctor in reaching the North Pole. We should, of course,—and we do—find greatest pride in the fact that Dr. Cook is an American, but next to the patriotism which thrills our hearts, with that of millions of other loyal Americans, because the stars and stripes were the first to flutter in the polar breezes, comes the pride that Doctor Cook is a medical man. It isn't that the penetration of the mystery which hitherto has kept the Pole shrouded from man's prying instincts means anything to us in a medical way; but it simply adds a whole laurel wreath to a profession which has too long been content to strive for achievement within the restricted bounds of medical science. Dr. Cook's discovery of the Big Nail is but another evidence of American grit, perseverance and determination. It was a test of human endurance to withstand the hardships and privations, which to us are well-nigh unthinkable. Enough, however, has been said and is still being said, and, perhaps, for months will be said, in praise and wonder over the man who first found a way to the North Pole. His name has been inscribed among the names of those whose fame is undimmed by the passing years, and no amount of petty jealousy, mud slinging and disparagement has succeeded, or will succeed, in dimming the lustre of his imperishable name.

The attitude of Commander Peary has justly received the stamp of mean and small-souled by the whole world. There remains little that could be said in regard to his actions and utterances throughout the whole affair. The majority of lay papers of the whole country have, we believe, shown a tendency to side with Dr. Cook in the controversy, and all because he has consistently acted the part of a gentleman toward the other side. Peary seems to have an idea that no one but himself had any right to find the North Pole: because he had made numerous attempts and failed he apparently had conceived the notion that he had a monopoly on the whole Polar region and that all who dared tresspass should be looked upon as poaching on his preserves. This ambition to be the first man to reach the North Pole amounted to an obsession in the case of Peary to the extent we believe, that he would become a raving maniac were he to be discredited by the world. In some respects he has already shown himself far from being a normally balanced individual. There can be no doubt, however, that so far Cook has the best of the argument. He has refused to retaliate, he has conducted himself in a dignified and courteous manner, and he has only to prove that he has been there. On the other hand, Peary has acted the part of a small, spoiled child, he has shown how puerile and selfish is his spirit, and not only must prove that Dr. Cook has not been there, but he must at the same time adduce evidence to prove that he—the great Peary—"nailed the Stars and Stripes to the North Pole." We do not for a moment wish to attempt to decide the controversy. It is perfectly possible that both men reached the Pole, but our purpose is merely to witness to our great admiration of Frederick Cook, the physician, the gentleman, the explorer, the greatest discoverer since Columbus.

SCHAFER'S METHOD OF ARTIFICIAL RESPIRATION.

The Silvester method of artificial respiration has doubtless been more widely taught and employed than any other. It is necessary only to mention it that one shall be perfectly understood. Another method was taught by Marshall Hall, and still another, which is likewise better known in this country, is the method introduced and demonstrated by Benjamin Howard. A still newer method has recently been advocated by Schafer, and those who have employed it report that its simplicity and the ease with which it is put in practice render it the best method yet devised.

Schafer's method differs from Howard's in that it depends entirely on the fact that in ordinary tranquil respiration the diaphragm sinks with inspiration, and as it sinks pushes forward the epigastrium. If, therefore, this portion of the belly be compressed it pushes the viscera back against the diaphragm, drives it upwards, and expels air from the lungs. Schafer insists on this principle, and has no desire to compress the thorax at all, though practically the thorax is to some extent compressed. He has shown that compression of this part of the abdomen causes a large exchange of air, larger, he thinks, than can be obtained by other methods, including Silvester's. Professor Keith and others, however, doubt this latter conclusion.

In brief Howard's method was to put a large pad under the shoulders, and bend the head back until it was at right angles to the trunk: in this position the trunk is drawn forwards, and the glottis is necessarily open. Then he got astride of the

patient and forcibly compressed the thorax. He grasped the lower ribs, and by so doing to some extent made pressure on the abdominal viscera and pushed them against the diaphragm.

Professsr Shafer also at first advised a pad under the shoulders, but he afterwards abandoned it as not only unnecessary, but positively injurious. He places the patient prone with his face turned to one side, and, kneeling either at the side of him or astride —astride is very much better—he places the palms of the hands on the loins as low down as possible: the thumbs should be parallel on either side of the spine, The palms of the hands should not touch, but be placed just above the iliac crests: the fingers just reach the lowest ribs. All that need be done by the operator is to press and relax alternately by leaning forward on to the outstretched arms, waiting a couple of seconds, and then without removing the hands throwing the body back on to his haunches. This pressure causes the expiration that would normally be produced by the natural resilience of the abdominal wall. It must be noted that in an apparently drowned person (or one actually dead) the abdominal wall is much less elastic and resilient than in normal individuals. When the weight of the body is thus thrown on to the arms, a pressure of forty, fifty, or sixty pounds is exerted, which is quite enough: this is much less likely to do any harm than is the Howard method,

As Dent, from whose article in *The Hospital* we quote at length, remarks, every new method introduced upon the medical stage seems to pass through certain definite vicissitudes. At the outset full of promise, it embarks on a career of great success until critics or the introducers of new measures fall upon it. If it survives these onslaughts, the originator is often the next to fall foul of his own protege. He will point out how he has improved on the original by his later modifications. This has been especially the case in the treatment of the apparently drowned. A fair criticism of the Schafer method is that the original experiments were made upon living individuals, and even on those who were prepared by a series of deep inspirations; not upon the apparently drowned. The difference is extremely great: but as a matter of fact Schafer had previously experimented on dogs which had been immersed for varying periods.

PERISTALSIS HORMONE.

According to Starling the hormones, in contrast to foodstuffs, are to be regarded as stimulating substances, the purpose of which is to stimulate certain cell groups to certain prescribed functions. An example of this is to be found in the mamma-hormone, discovered by the above named investigator. It is known that from the very commencement of pregnancy there occurs a constant and increasing growth of the mammæ, which continues right up to term. Starling has been able to adduce proof that this enlargement is caused by a substance produced in the growing embryo, as by means of the injection of extracts of such embryo he succeeded in causing enlargement of the mammæ of virgin rabbits, such as would correspond to the early stages of gestation. Zuelzer now infers that a similar specific hormone may also exist for the function of intestinal-peristalsis—in other words that normal peristalsis is set up by a special hormone. On the analogy of physiological experience, as, for example, the secretory conditions of the pancreas and of Brunner's glands, it appeared very probable to him that the seat of this hormone might be in the mucous membrane of the stomach, and, in fact, he was able to demonstrate the existence of a peristalsis-hormone in that situation. A necessary proviso for obtaining this hormone is that the stomach of the animal shall be at the height of digestion; from the fasting stomach the hormone which stimulates peristalsis cannot be produced. This hormone, in like manner to all others, exerts its effects by way of the blood stream. When the peristaltic hormone is injected intravenously into a rabbit there occurs, after the lapse of a few seconds, an energetic peristalsis beginning at the duodenum and reaching to the rectum. By floating the intestinal coils of a chloralized experimental rabbit in saline solution, the fecal contents may be seen to be driven from above downward; at first there occurs a lively commotion in the coils of the small bowel, gradually propagated to the rectum, where it becomes lost. Finally fecal masses and air bubbles may be seen to issue from the rectum. This peristalsis-hormone can be extracted from the gastric mucous membrane by saline solution or dilute acetic acid. Zuelzer has tested the stomachs of various animals—horse, ox, rabbit, pig and dog—and always found the hormone. Of the four stomachs of the ox it seems that only the rennet or glandular stomach, upon which is imposed the digestion characteristic of the animal, yields the hormone. This substance may also be obtained from the uppermost part of the duodenum. Zuelzer draws attention to the fact that in physostigmine we apparently possess a substance similar to peristalsis-hormone, though minute investigations of the relations of the two substances shows that peristalsis-hormone transmits a physiological stimulus, while physostigmine calls forth contractions

of a tetanic nature. Brugsch, from whoes article in *Folia Therapeutica* we are indebted, remarks that there can be no doubt that these observations of Zuelzer will blossom out into fine therapeutic results in the treatment of constipation, and that our present teaching on the subject will have to undergo some modification necessitated by the discovery of the peristalsis hormone. Manizer draws attention to the fact that in laparotomies performed under lumbar anesthesia, when adrenalin was used in the anesthetic, a very considerable increase of peristalsis was frequently observed, whereby a more rapid evacuation of the feces was brought about; the intestinal contractions, however, were similar to those produced by physostigmine, *i.e.*, they were of a specific nature.

IMMORALITY.

Even physician, nurse, and yes, even the laity have heard of the great fight now being made against the great "White Plague." From the largest city unto the smallest hamlet in our own country has the battle cry of the human race against tuberculosis been heard. On all sides there are notices, lectures, pamphlets, and educational exhibitions, tending to increase the general knowledge of this dread disease and the prevention of it. All of which is very commendable and of great value in the protection of the human life against this death-dealing enemy. But against the greatest destroyer of our health, our happiness, our homes, and our lives, against the arch enemy of the proper healthy propagation of our race what is being done? This arch enemy is Immorality, with its attendant staff of syphilis and gonorrhea.

Were it possible to obtain accurate and exact statistics of what it is directly and indirectly the cause of, the death rate even of it would astound one, whereas the record of the suffering and unhappiness caused by it would be so great and overshadowing that it would eclipse all the records of all the other diseases put together in this regard, and stagger the most vivid imagination to exaggerate it, or the greatest mind to properly comprehend it all. Yet again the question, "What are we doing against it?" And a loud echo answers from all over our great land "Practically nothing," while the devil smiles and is glad to see how unconcerned, and in fact, how willingly, our younger generation is handed over to lives of suffering and sin.

Is it not time now and at once to wake up to this arch enemy and take immediate steps to stop its ravages against our race? Every physician knows that what is said here is true and that every year sees the danger an increasing one. Is our race to be allowed to deteriorate, or will we take measures that will not only stop its deterioration, but will tend to improve our children and those who come after them.

We have raised the world over the double line red cross flag against tuberculosis. Let us all get together, physicians, clergymen, and the laity, and everybody regardless of race, color, creed, or walk in life, and raise the white cross flag—I suggest a white cross, signifying purity in all things, on a field of light blue—against immorality and its attendant evils. And the sooner the better for all of the human race the whole world over.

In this great, grand, and noble work let America lead; and what better place to start such a crusade than in the South, noted for its chivaly to and its respect for its womanhood.

REX HOSPITAL.

Sept. 28th was set apart by the trustees of Rex Hospital, Raleigh, N. C., as a day for receiving gifts for the almost completed new hospital building which is soon to be dedicated. On that day the hospital was thrown open to the public, and visitors in great numbers thronged the wards from 2:30 to 10 p. m. Contributions of all kinds were received in the shape of money, linen for beds, &c., chinaware, kitchen utensils, furniture, and pantry supplies. The Raleigh citizens, to whom this institution has meant so much and will in the future mean immeasurably more, responded most liberally. The new superintendent, Miss Orchard, and a corps of capable nurses were on hand to pilot visitors about the building.

At the dedication of the hospital, which will come a little later on, after the equipment is complete, it is expected to have Dr. Oliver P. Rex, of Philadelphia, a nephew of the late Mr. John Rex, and several other members of the Rex family from Pennsylvania. The latter made gifts which make the hospital an actuality. At the dedication there will be appropriate religious and musical services.

ST. JOSEPH'S INFIRMARY.

Plans for the new St. Joseph's Infirmary, which will shortly be erected in Atlanta, Ga., have been approved. The new hospital will cost $150,000 and when completed will be one of the handsomest and decidedly one of the most modern structures of its kind in Atlanta. The plans include every modern and convenient device which can contribute toward making a hospital up-to-date and thoroughly complete. It will be located at the corner of Courtland and Baker streets. All the old building with the exception of the Spaulding wing will be torn

down to make way for the new. When ready for occupancy there will be accommodation for one hundred patients.

EDITORIAL NEWS ITEMS.

Dr. H. A. Royster was recently elected President of the Raleigh Chamber of Commerce and Industry.

The Medical Department of the University of Alabama, located at Mobile, opened its 1909-1910 session, Sept. 22. A large attendance of students is assured.

Dr. Beverley R. Tucker announces that after September the first, 1909, his offices will be at his residence, 208 Franklin St., East Richmond, Virginia.

Dr. John M. Faison, of Faison, Duplin county, N. C., is being urged by his friends to become a candidate for nomination on the Democratic ticket to represent the Third Congressional District in the next U. S. Congress.

The new operating room on the fifth floor of the Delgado Memorial, one of the Charity Hospital buildings of New Orleans, was formally opened Sept. 17th, by Dr. Ernest S. Lewis, one of New Orleans' most honored veteran surgeons, after whom the room has been named.

The regular monthly meeting of the Wayne County Medical Society was held Sept. 7th, in Goldsboro, N. C. Dr. E. T. Dickinson, of Wilson, addressed the society on "The Advantages of Organization." Major-Surgeon Paul C. Hutton, U. S. Army, also spoke on "The Mosquito Pest and its Prevention."

The Atlanta School of Medicine opened with favorable prospects for a successful year on Sept. 21. An opening address was made by Dr. T. J. McArthur, of Cordele, Ga., who is president of the Georgia Medical Association. Other addresses were made by ex-Governor W. J. Northen and Bishop C. K. Nelson, who are trustees of the school.

The Medical Department of the University of North Carolina begun its eighth annual session Sept. 8th, simultaneously with the other departments of the University. The Raleigh school opened most auspiciously with increased attendance of students and enlarged faculty. New members of the teaching force are Dr. Jno. S. McKee, Demonstrator of Obstetrics, and Mr. J. M. Harper, Assistant Demonstrator of Clinical Pathology.

The Medical Department of Wake Forest College opened for the session 1909-1910 with twenty-seven students. Dr. Jas. B. Powers, dean of the Medical School and Professor of Bacteriology and Pathology, succeeded Dr. W. S. Rankin in this position. Dr. Edgar E. Stuart is Professor of Anatomy and Physiology.

Battle & Company, the well known chemists' corporation of St. Louis, have only recently issued No. 10 of their handsome Dislocation Chart Series. They announce that they will send all back numbers of the set free of charge to physicians, upon request. These charts are large colored cuts of the various dislocations, and are both valuable and ornamental. Address

BATTLE & Co.,
2001 Locust St.,
St. Louis.

Among the additions to the faculty of the Medical College of Tulane University is I. S. Kliener, M. D., Ph. D., of Yale. Dr. Kliener will be the first assistant in physiological chemistry. For two years he has been connected with the Sheffield Scientific School of Yale University, under such men of world-wide influence as Profs. Chittenden and Mendle.

While at Tulane as demonstrator and lecturer, he will continue his research work in physiological chemistry.

The following announcement has recently been received by the Journal:

"Dr. Benjamin B. Steedly announces to the medical profession that after the first of September, nineteen hundred and nine, he will confine his practice exclusively to Abdominal Surgery, Diseases of Women and Consultation Work. Private Hospital Corner Main and Liberty Streets, Spartanburg, South Carolina."

Dr. Steedly is already well known to the profession. He therefore needs no word of commendation at our hands.

The Medical College of Virginia begun its 1909-'10 session Sept. 14, with a large number of students already registered. This school has raised its entrance requirements so that all students must now take an examination equivalent to four years in a high school or present a certificate satisfactory to the secretary of the State Board of Education, who will also look over and pass upon entrance papers of those who take the examination after reaching Richmond. This applies only to those studying for the degree

of M. D. Next session the same requirements will be made of applicants for the degree in dentistry.

The Louisiana Anti-Tuberculosis League has established its free clinic at 1309 Tulane Ave., New Orleans. With a visiting nurse employed and a sanitarium camp in St. Tammany parish, it is doing widespread and vigorous educational work by means of literature and lectures, and is furnishing milk and eggs to consumptives who are indigent.

The league is headed by Dr. E. L. McGehee, president. Miss Eleanor McMain is first vice-president, Miss Kate Gordon second vice-president. Other officers are Dr. J. George Dempsey, secretary, and Dr. George S. Brown, treasurer.

The free clinic was opened in November, 1908. In the eleven months it has been in use, it has amply demonstrated its usefulness, and shown that it is a real boon, especially to the poor of the city. During the month of July, which is typical, 45 new cases were treated, and treatment of 175 cases was continued.

An excellent laboratory is maintained for the purpose of making examinations of sputum and blood, and for research work. Dr. A. I. Weil is in charge of the clinic.

Dr. Frank M. Reade, of Richmond, Secretary of the Medical College of Virginia, is making a record for himself not only as a practitioner of medicine, but also as an alderman of that city. He was elected on nomination of the ward delegation some time ago, to represent Monroe Ward, succeeding Dr. Emmon G. Williams, resigned. Dr. Reade was re-elected last year in his ward by a large vote, and held the unique distinction of being the only member of the Committee on Relief of the Poor to be reappointed at the time there was a clean sweep in the affairs of the almshouse. Dr. Reade has been energetic in the administration of the City House and Hospital, and has introduced many reforms, especially in the hospital and ambulance departments, which have been greatly improved.

He also served some time on the Committee on Street Cleaning and secured the appropriation for the erection of a new incinerator, making a strong argument both in committee and council on sanitary grounds. He made a tour North, visiting a number of garbage-destroying plants, and recommended the one which the city has contracted for. Recently Dr. Reade has been transferred from the Street Cleaning Committee to the Committee on Finance. Throughout his councilmanic service he has been an ardent champion of the Board of Health on the floor of the Council.

At a meeting of the Board of Directors of the Western Hospital for the Insane at Morganton, N. C., held Sept. 8, the superintendent reported the number of patients on August 31st, 1909, as follows: 454 men, 737 women, total, 1,191. He also reported that the colony buildings were about completed and would be ready for occupancy within the next thirty days. This will give room for 100 additional male patients. On account of lack of room for men, many meritorious cases have been refused. The opening up of the new colony buildings will, in a measure, relieve this pressure.

Report of the special committee composed of the superintendents and directors of the two hospitals, which met in Morganton on the 18th of August for the purpose of considering changes in the line of the hospital districts, was received and approved by the Board of Directors. According to this report the counties of Scotland, Lee, Moore, Orange, Alamance, Caswell and Person were transferred from the Morganton to the Raleigh district.

Dr. E. M. Gayle, third assistant physician, tendered his resignation, to take effect December the first. It was accepted by the board with much regret, as since his connection with the hospital, he has demonstrated his great ability as a physician, and has filled his office with great intelligence, zeal and success. Leave of absence was granted Dr. P. V. Anderson, second assistant physician.

A special meeting of the Board of Directors was called for October 7th, for the purpose of electing two assistant physicians, one to take the place of Dr. Gayle, resigned, and the other on account of the large increase in the number of patients in this hospital.

A New Medical School in Kentucky.

It is believed that plans have been perfected for the establishment of a medical school in Lexington, Ky., which will be a branch of the State University. It is expected that the new college will be opened early this fall.

Nurses Graduate.

Seven young women, on Sept. 9th, were graduated trained nurses from Hotel Dieu Training School for Nurses of New Orleans. The graduates were Misses Helen Steckley, Lida McGuirk, Margaret Aveguo, Naida Wells and Elizabeth Taylor of New Orleans; Miss Marie de Wilde of Antwerp, Belgium, and Mrs. Cecile Tucker, of Schreiver, La.

Dr. P. L. Hagler, of Birmingham, Ala,, was shot, September 3rd, and seriously wounded by the husband of a woman patient on whom the physician was accused of having performed a criminal operation.

The Salvation Army in Selma, Ala., took charge of the City Infirmary on Selma Street in that city on Sept. 15th, and is operating that institution for the charity patients of the city.

Gov. Noel, of Mississippi, has appointed Dr. J. J. Mathis, of Orwood, Miss., a member of the State Board of Health from the second Congressional District, in place of Dr. R. A. Seale, who recently resigned the position.

Dr. J. H. White, in charge of the United States Health and Marine Hospital Service, announces that Dr. W. Herbert Harris has been appointed to succeed Dr. Duke W. Goodman as representative of the service at Port Limon, La.

The magnificent new Watt's Hospital in Durham, N. C., is nearing completion and it is expected that it will be formally opened on November 1st. It is said that the cost of this institution will be about $400.000, truly a splendid philauthropy by one of North Carolina's most noble sons.

Acting Surgeon, Dr. J. William Folk, of the United States quarantine office for Winyah Bay, and medical officer in charge of the Georgetown quarantine station, at South Island, S. C., has resigned this position. The resignation took effect on September the 16th. Dr. Field held this position for twenty-five years, and will be greatly missed in this service.

The annual session of the South Carolina Medical college, at Charleston, begun Oct. 4, with record breaking registration. During the summer the college building has been thoroughly renovated, and the facilities and equipments have been greatly increased. A new physiological laboratory will prove a boon to the school.

The Hospital Medical College, of Atlanta, Ga., opened on Tuesday, September the 21st, with attendance which surpassed the expectations of the faculty. Addresses were made by Rev. Dr. Young, Dr. D. M. Mathews, and the dean of the college, and a number of others. The management of this institution reports great satisfaction with the prospects for the ensuing term.

Mayor Crabtree, of Chattanooga, Tenn., suspended Dr. W. A. Shafer, a member of the city board of public safety, on Sept. 9th. The mayor alleges Dr. Shafer is proprietor of the Pastime Social Club, which was organized in that city about the time statewide prohibition became effective in Tennessee. Mayor Crabtree officially demanded the resignation of Dr. Shafer on Sept. 9th.

At a meeting of the Tidewater Medical Society, which was held in Urbanna, Va., September the 20th, the following officers were elected: President, Dr. W. T. Jones; Vice-Presidents, Drs. J. W. D. Haynes, J. N. DeShazo, A. C. Palmer, Claybrook Fauntleroy; Secretary and Treasurer, Dr. G. W. Brown. Papers were read by Dr. W. S. Christian, and Dr. C. D. Marchant. The next meeting of the society will be held in Saluda, June 12, 1910.

At Saluda, S. C., on Sept. 6, the Saluda County Medical Society and the Saluda County Public Health Association held a joint meeting over which Dr. D. B. Frontis, of Ridge Spring, presided. Dr. C. F. Williams, of Columbia, Secretary of the South Carolina Board of Health, presented a very interesting and valuable paper dealing with the urgent necessity of giving instruction in the public schools concerning the prevention of disease. Dr. G. A. Taylor, of Augusta, Ga., discussed the prevention of malarial and typhoid fevers. Tuberculosis and its prevention also received its share of discussion.

An injunction restraining one J. W. Crawford from practising medicine without license at Donald's, Abbeville county, S. C., has been made permanent after a hearing of the case before Judge J. C. Klugh, at Abbeville. Counsel admitted that Crawford was practicing medicine and based their defense upon the unconstitutionality of the act and on the ground that the bill was void of equity in that a violation of a criminal statute could not be enjoined.

Judge Klugh held the act coustitutional and signed the order making the injunction permanent. The case will be carried to the supreme court.

A National Conference on Pellagra will be held in Columbia, S. C., on November 3rd and 4th, 1909, under the auspices of the South Carolina State Board of Health.

Physicians and sanitarians are cordially invited to unite with us in a study of the disease. Although the malady is of comparatively recent recoguition in this country, it has already manifested itself in seventeen states, and is assuming the proportions of a public health problem.

The conference will include not only addresses, papers and discussions, but a number of clinical cases will be presented; thus

affording an excellent opportunity for a study of the disease.

Information can be obtained by writing Dr. C. F. Williams, Secretary of the Board.

Mississippi Medical Examiners.

Secretary S. H. McLean, of the State Board of Health of Mississippi, announced the regular examination of applicants for license to practice medicine to be held in the New Capitol in Jackson on Oct. 12 and 13. The examination is held under the auspices of the State Board of Health. The leakage of the examination questions which caused such a sensation and compelled the board to call off the examination some months ago, determined the board to safeguard this examination in a manner which would make it impossible for a leak to occur.

Pellagra Conference.

A national conference on pellagra will be held in Columbia, S. C., under the auspices of the South Carolina State Board of Health, Nov. 3rd and 4th.

Gov. Ansel has appointed the following scholarships for the South Carolina Medical college at Charleston for the session of 1909-10:

First District—Josiah Smith, Charleston.
Second District—Thomas W. Hutson, Aiken.
Third District—J. Rayford Power, Abbeville.
Fourth District—Alva Pack, Greenville.
Fifth District—W. B. Marion, Chester.
Sixth District—S. R. Lucas, Florence.
Seventh District—H. Timrod Schiffley, Orangeburg.

Medical Society.

The Lexington County (South Carolina) Medical society met in Lexington Oct. 4th. The feature of the meeting was an address by Dr. T. H. Dreher of St. Matthews, who spoke on "The Business Side of Medicine." Papers were also read by Dr. A. H. Knowlton, on "Uterine Deviations," and by Dr. F. A. Coward, on "The Laboratory and the Country Doctor."

A banquet was tendered the visiting doctors on the lower floor of the Masonic building, to which a number of friends were invited. The dinner consisted of barbecued meats, Dr. R. E. Mathias acted as toastmaster.

At the afternoon meeting Dr. F. R. Geiger of Brookland was chosen president; Dr. R. E. Mathias, vice-president. Dr. Jas. J. Wingard of Lexington, who has been the able secretary since the organization of the society five years ago, was unanimously re-elected, which is but an index to the high esteem in which he is held by the doctors of the county.

Marriages.

Dr. Guy Miller, a prominent young physician, of Purcellville, Va., and Miss Elizabeth Bell, of Washington, D. C., were married recently, at the bride's home in Washington. Dr. and Mrs. Miller have located in Purcellville.

Dr. Herbert Phelan Cole, of Mobile, Ala., and Miss Elizabeth Wells, of Canton, N. Y., were married on September the 15th at the bride's home. Dr. and Mrs. Cole will live in Mobile, where Dr. Cole is engaged in the practice of medicine.

Dr. J. J. Powell and Miss Modane Carter, both of Gainesville, Ga., were married in Gainesville, September the 1st, at the home of bride's parent's, Dr. Powell is a prominent young physician, and has located in Gainesville, for the practice of his profession.

Dr. J. S. Dye, a very prominent physician of Chattanooga, Tenn., and Miss Lucy Wade, of Waterbury, Conn., were married Sept. 29th. Dr. Dye is a graduate in medicine from Vanderbilt University, Nashville, Tenn., having completed the course there in 1897. Dr. and and Mrs. Dye will reside in Chattanooga, where Dr. Dye has gained great prominence as a physician.

Deaths.

Dr. G. L. Martin, of Greenville, S. C., died at his home on Sept. 16th. He had been in ill-health for many months, and his death was not unexpected.

Dr. Martin was fifty-five years old. He graduated from the College of Physicians and Surgeons, Baltimore, Md., in 1877, and since that time has practiced medicine in South Carolina. For the last five or six years he has been the special vaccination and quarantine agent of the State Board of Health for the counties of the piedmont section of South Carolina.

Dr. Martin was one of the leading physicians of his section of the country.

Dr. J. T. Williamson, an aged and prominent physician of Calhoun County, Ala,, died at his home at Peek's Hill, August 30th. His death was due to a stroke of paralysis. Dr. Williamson had lived in Calhoun county all his life, and was a regular practitioner until about two years ago, when an accident caused the amputation of his legs.

Dr. Robert E. L. Johnston's funeral was conducted September 17th from the residence of Mr. James E. Johnston, of Brooklyn. He was a former resident of Alexandria, Va., and died recently in Brooklyn, N. Y.

Dr. Cleveland B. Floyd, a prominent physician of Fairburn, Ga., died at a hospital in Atlanta, Ga., September the 3rd. He contracted blood poison while performing an operation.

Dr. Floyd graduated from the Atlanta Medical College in 1895, and since that time had been a regular practitioner in Fairburn.

Dr. Junius K. Battle, a graduate of Tulane University, and a very prominent physician and citizen of Eulaula, Ala., died September 28th. Paralysis was the cause of his death. He was forty-eight years old when he died, and a man who was very popular in his state.

Dr William J. Bramlett died at his home in Campobello, S. C. Sept. the 8th, after a brief illness. He was a skilled physician and had a large practice, He was 54 years old.

Dr. W. G. Austin, an eminent physician of Utica, Miss., was found dying in his office on Sept. 25th. He lived only about half an hour after he was found in this condition. Apoplexy is thought to have been the cause of his death,

Dr. Austin graduated from the Memphis Hospital Medical College, Memphis, Tenn., in 1894.

Review of Southern Medical Literature

Gaillard's Southern Medicine, August, 1909.

Diagnostic Uses of Tuberculin.—Dr. McGuire Newton says that the application of tuberculin by inunction is known as the percutaneous reaction, and is described by Moro, its originator, as follows: "A tuberculin ointment is prepared by a combination of equal parts of old tuberculin and anhydrous lanoline. The lanoline base is used because with it it is possible to prepare a very concentrated ointment. The mixture is made at a temperature of from 20 degrees to 30 degrees C. Ten grammes of ointment is sufficient for one hundred tests. The point of application is over the skin of the abdomen. In case the skin at this region is not clear, that over the breast is treated. The ointment is energetically rubbed on to the skin for from one-half to one minute. The area of the part to be treated is about two inches. The positive effect is noted by the eruption of a granular or papular efflorescence at the point of application," which appears in from six to twenty-four hours, to disappear in several days.

This reaction has a distinct advantage in that it can be applied without puncturing or abrading the skin or producing any disagreeable sensation at the time of its application, and, as with the cutaneous test, the patient can be assured of its harmlessness and told that its most unpleasant effect consists in a disagreeable itching in the event of a severe reaction. Its diagnostic value is not quite equal to the cutaneous, as it is not so sensitive, and it does not occur so readily in the pulmonary and progressive cases.

Whooping-Cough.—Dr. S. A. Visanska believes that local treatment will give good results in many cases, a spray of peroxide of hydrogen, glycerine and water or a few drops internally to infants. Medicated steam often brings relief, especially where the mucus is tight and ropey. A croup kettle can be used to convey the steam or a coffee pot will suffice. The medication should consist of carbolic acid, oil eucalyptus and turpentine.

Local applications of mustard and camphorated oil seems to make the child more comfortable. To cut down the number of the paroxysms the drugs most useful are sodium bromide, belladonna, antipyrine, quinine, bromoform, and recently he has used passiflora incarnata (May-pop). Until he began to use the passiflora his preference was for a combination of antipyrine and sodium bromide, but the results from the use of the passiflora have been so satisfactory that he has discarded everything else in favor of it. He has used this preparation in thirty-two cases and the results were astonishing; the severe cases being converted into mild ones and complications of any kind were averted. It is non-toxic, does not constipate, is palatable and leaves the little patient with no bad after-effect. Begin with average doses every two hours and increase the dose until the paroxysms are under control.

New Orleans Medical and Surgical Journal.

Plea for the Systematic and Universal Examination of School Children's Eyes, Ears, Noses and Throats.—Dr Frank Allport quotes the Vermont law which he considers the best one that has yet been passed:

Section 1. The State Board of Health and the superintendent of education shall prepare or cause to be prepared suitable test cards, blanks, record books, and other needful appliances to be used in testing the sight and hearing of pupils in public schools, and

necessary instructions for their use; and the superintendent of education shall furnish the same free of expense to every school in the State. The superintendent, principal, or teacher in every school during the month of September in each year shall test the sight and hearing of all pupils under his charge, and keep a record of such examination according to the instructions furnished, and shall notify in writing the parent or guardian of every pupil who shall be found to have any defect of vision or hearing, or diseases of eyes or ears, with a brief statement of such defect or disease, and shall make a written report of all such examinations to the superintendent of education as he may require.

Section 2. The State Auditor is hereby directed to draw his order on the State Treasurer for such sums and at such times as the Superintendent of Education, with the approval of the State Board of Health, may require to carry out the provisions of this act The total expense under this act shall not exceed six hundred ($600.00) dollars in any biennial term ending June 30.

Section 3. This act shall take effect July 1, 1905.

Amebic Dysentery.—Dr. George Dock points out that for treatment, not enough has been said or done regarding prophylaxis. The amebæ come from the water or the soil, or from food off or out of the soil. Raw vegetables and greens are especially likely to be carriers. If we cannot secure uncontaminated water at the outset, we should do as much as possible to prevent ground and water infection by proper latrines, and with the increased activity of racially careless market gardeners we should have inspection of the methods of fertilization, and be certain that the use of human manure is not in vogue.

Curative treatment is most effective in the beginning, and many cases of amebic dysentery would never reach a positive diagnosis if acute diarrheas were more promptly and radically treated. Purgation, colon flushing, intestinal antiseptics and diet form the basis of successful early treatment. Later, rest in bed is an essential; free evacuation just as much so. Beyond these are many methods that would be impossible to enumerate now. Although while one of these, enemata, including those of quinine, is often of great palliative value, real cure rarely follows, nor can it if the lesions are high up, without more pains than most patients can receive. The more rational direct method, by an opening into the upper end of the colon, is more promising, but there, too, success will depend mainly on the thoroughness of the subsequent local treatment. Before this is used he would strongly urge a careful trial with ipecac.

Blue Sweat.—Dr. J. A. Storck gives the following indications for the elimination of the cause of indican production:

It is the consensus of opinion that thorough intestinal antisepsis is impossible. However, much can be accomplished by clearing out the intestinal tract and introducing a new culture medium, one in which the bacteria present will not thrive so well. Preparatory to this, calomel and urotropin may be used, and then the feeding with sour milk may be begun. The rationale of a sour milk diet is that lactic and succinic acids present nitrogenous putrefaction, but their action is of short duration. It is therefore, necessary that, along with the sour milk, such agents as thioform, ichthyol, tannalbin, etc., be employed.

If the stomach contents are deficient in hydrochloric acids, its administration is indicated.

Grape ferment and brewers' yeast are energetic as antiputrefactive agents and may be employed in suitable cases.

The future diet of the patient should be carefully formulated. A lacto-farinaceous diet meets the requirements best. A gradual return to a more liberal diet may be brought about by degrees, allowing only a small amount of proteid.

Surgical Aspects of Chronic Diarrhea; or Appendicostomy and Caecostomy.—Dr. H. B. Gessuer says that there is no question in the minds of those who have written on this subject of the value of the method. The discussion revolves about the selection of suitable cases for the operation, which is of course indicated in cases of disease between the cecum and the rectum. In this connection let me quote again from McCaw in Keene's Surgery: "There are certain cases of chronic amebic dysentery which proceed slowly but inevitably to a fatal termination without improvement. At the autopsy table it is seen that the lesions are of such extent that the entire gut is practically disintegrated. The pathologic process has at no time been very acute, but has involved so large an area as to prevent any attempt on the part of nature to repair damages. It is discrediting a valuable method of treatment to confine operation to such hopeless cases. Patients who show by their response to treatment by rest, diet or medication that their large intestines are not entirely crippled are the ones for whom irrigation from cecum to outlet is most suitable."

The Southern Practitioner, August, 1909.

Clinical Features of So-Called Acute Pellagra.—Dr. N. P. Walker says that the

blood of one patient presented a typical picture of pernicious anemia: hemoglobin 35 per cent., red cells 862,000, whites 9,400, polynuclear cells 59.4, small mononuclear 32.8, large mononuclear 4.8, eosinophiles 0.4, myelocytes 2.8. In counting 500 white cells, there were noted 34 normoblasts, 15 megaloblasts and 5 free nuclei. The autopsy findings corroborated the clinical picture. Exclusive of this case the blood findings are of some interest in thirteen other cases in which partial or complete examinations were made. Hemoglobin varied from 65 per cent. to 95 per cent., red cells from 2,500,000 to 5,292,000. The white cells were decreased in 2 cases, slightly increased in 4, and within normal limits in 6. In the differential counts no constant findings of interest were noted. Excluding the above-mentioned cases, nucleated reds were found in three of ten cases in which complete counts were made. One of the chief points of interest in this connection is the fact that nucleated red cells may be found comparatively early in the disease and when hemoglobin is normal or above. A more extended study of the blood may yield some information of value.

Note on Pellagra in Maryland.—Dr. W. S. Thayer says that the disease is met with in two main forms; (1) as an *acute typhoidal condition;* (2) as a *milder chronic*, and commonly *rccurrent malady*.

In the first form the disease is acute and fatal, running its course in a few weeks with active delirium, fever and uncontrollable diarrhœa.

In the second form the disease may run a chronic course with relapses lasting, in some cases, as long as 25 years. The severer cases run, however, a much shorter course. With each relapse emaciation, anæmia and debility increase, and with the progression of severe nervous and mental symptoms the patient becomes profoundly cachectic, demented and bed-ridden, partly, as Neusser has said, because of weakness, partly because of changes in the cord.

The Texas Medical Journal, August, 1909.

Bichloride of Mercury Baths in the Treatment of Variola.—Dr. R. H. L. Bibb concludes:

First. That the patient sponged over every four hours, or as the cases indicate, with 1-500 warm solution of bichloride of mercury and his eyes, nose, mouth, ears and throat irrigated with a warm saturated solution of boracic acid is the rational treatment of variola.

Second. That its use will prevent itching, foul odors, pustulation, abscesses and pitting.

Third. That it will greatly lessen the mortality and suffering from one of the most loathsome diseases that afflicts the human race.

Fourth. That it should be expected to destroy the variolous virus in the vesicles, thus rendering the scabs and scales harmless, reducing thereby to a minimum the dangers of infection from a given case of smallpox.

Epidemic Pneumonia with a Few Suggestions on Management.—Dr. Stuart Mann says that usually in the beginning it is well to act on the portal system with mild chloride of mercury and watch the elimination frequently, especially if there is any disposition to fermentation. In several of my cases it was necessary to use salol and turpentine or the sulpho-carbolates.

When the first sound of the heart becomes less distinct and the pulmonic second sound loses its accentuated character or marked nervousness order alcohol combined with nourishment, and strychnia with carbonate of creosote, every four hours. If this does not suffice give digitalin, with or without strychnia, and where the urinal secretion is scant combine spartein in grain doses. If the above is not satisfactory and there is especial cardiac depression and pulmonary edema, give adrenalin-chloride, ten to twenty drops hypodermically to be repeated as indicated. He especially mentions that this is a most excellent remedy, as his results with it have been uniform in equalizing the circulation and relieving the edema.

In case of shock with pulmonary hemorrhage, in which the heart is "running away with itself" so to speak, acting like an engine without a governor, the author knows of nothing that equals the adrenalin-chloride.

Abstracts of the Leading articles of the month.

Bees' Stings and Rheumatism.—Walker (British Medical Journal) has investigated the statement that the sting of a bee will cure chronic rheumatism. He collected information from country doctors, bee farmers and from Dr. Ferc in Austria, who treated 700 cases of chronic rheumatism with bee's stings during the last thirty years. That the subject is worthy of earnest consideration is evidenced from the reports collected by Walker. A peculiar fact brought out in these investigations is the knowledge that sufferers from rheumatism are very little susceptible to the bee's sting. The active principle in the bee's poison is probably formic acid, which is found in the poison with an alkaloid. Further study of the subject is advisable, and hypodermic injections of the poison could be tried.

A Case of Bacillary Infection of the Urinary Tract Treated by the Corresponding Serum and Vaccine.—Butler, in The London Medical Lancet, mentions the case of a woman whose major complaint was difficulty in holding urine and scalding pain on passing it. Medical treatment was futile. Bacteriological examination of the urine showed bacillus coli and streptococcus, the latter in much larger numbers. Mixed vaccine of the two organisms was ordered. As the woman was acutely ill a subcutaneous injection of 20 cubic centimeters of the polyvalent antistreptococcus serum was given, without effect. The following morning 20 cubic centimeters more were mixed with normal saline and given as an enema, and repeated in four hours, and again without result. In the evening 25 cubic centiueters of anticoli serum was injected subcutaneously, and in twelve hours the temperature had fallen to nearly normal. The patient felt better, pain over the kidney was lessened, and micturition was less frequent and less painful. Twelve hours later 25 cubic centimeters was given as an enema, without result. The next day 25 cubic centimeters was given subcutaneously. Again there was a drop in temperature and relief of pain and scalding. Twelve days after the onset of the acute illness the mixed vaccine was given and caused a slight rise of temperature. The next injection was given two weeks later, and thereafter at a month's interval. Each injection caused a great deal of local pain and swelling. Evidently the reporter did not consider the ultimate fate of this patient worth recording. The fact of the prompt and pronounced improvement following at least two of his anticolic injections is suggestive.

Congenital, Hereditary, and Family Hematuria.—Aitken, in The London Medical Lancet, reports seven cases of this rare condition in one family which has been under his observation for seven years. The family is composed of 17 persons, of whom 9 have suffered from hematuria. Testimony is conflicting as to whether the great-grandmother had hematuria or not; she died of an advanced age of "senility" with autopsy. Her only child, a daughter, had hematuria, married, and had eight children, of whom three are alive. There is no evidence of any of those who died having had hematuria. Of the three living there is no evidence of the eldest son, 31 years of age, having ever had hematuria, but his six children have all been hematuric; the second son, aged 28, has suffered from hematuria, and also his only child, aged two years. The daughter, aged 23 years, and unmarried, has hematuria. It is interesting to know that the hematuria has been inherited first through the female side, and then transmitted on two occasions through the male side, in one case the transmitting male not being affected. In the family reported by Guthrie, in which 12 members of a family of 15, covering two generations, were affected the hematuria was transmitted only through the female side. In the six children having hematuria the condition is marked by acute exacerbations. There has never been at any time in any of the cases edema, nor pain on micturition, nor renal tenderness. None of them have suffered from scarlet fever, rheumatism, or gravel, nor have any shown symptoms of scurvy, purpura, or Raynaud's disease. There is no history of other hemorrhage in any of the cases. Guthrie says that the condition does not seem to endanger life or even health as a general rule. One of the author's cases died from acute nephritis with uremia, and this would necessitate a very guarded prognosis for the other members of the family. It is uncertain whether these cases of hereditary hematuria are of vasomotor origin or are due to structural changes in the renal vessels or tissues.

The Differentiation of Aortic Aneurysm and Mediastinal Tumors.—Tidy (The London Practitioner) gives the following points:

1. Etiology. Age, sex, arteriosclerosis and history of syphilis and strain should be considered and valued, but it should be borne in mind that this is mainly *a priori* reasoning. The history of primary growths elsewhere is of importance.

2. Cachexia is usually rapid with neoplasms. Patients with aneurysm are generally in good general condition.

3. Irregular pyrexia is common with neoplasms. With aneurysms pyrexia is extremely rare.

4. The advance of a neoplasm is more rapid than that of an aneurysm.

5. Extrathoracic glands and primary and secondary tumors elsewhere must be looked for. The breasts, axillæ, supraclavicular fossæ and the genital organs should be examined especially.

6. Pressure effects are less marked with neoplasms than with aneurysms, with the exception of those connected with the venous system.

7. With neoplasms, involvement of the recurrent laryngeal nerve is rare, and tracheal tugging very rare. Paralysis of the phrenic nerve, leading to immobility of the diaphragm on the affected side, is not uncommon, especially in neoplasms of the lung. This never occurs with aneurysms.

8. The sputum is scanty with neoplasms,

except with primary growths of the lung, when it often has the "red-currant-jelly" appearance.

9. Pleurisy is common with neoplasms.

10. The dullness of a neoplasm tends to have an irregular outline and distribution.

11. A neoplasm may appear externally and have transmitted pulsation. A distinct prominence is rare and the tumor need not be in the line of the aorta. It is not expansile, has no thrill and no diastolic shock. A systolic murmur may be present, but is rarely conducted along the vessels. There is no diastolic sound.

Gumma and aneurysm not infrequently coexist. In this and any case where gumma is suspected iodide of potassium is a powerful diagnostic instrument. In the general diagnosis of whether or no an aneurysm be present Killian has recently been very successful with the aid of a bronchoscope. In all cases the X-rays should be employed, but after rather than before physical examination.

The Infection of Consumption.—Williams, in The British Medical Journal, discusses the various sources of infection in pulmonary tuberculosis. 1. Husband and wife infection. In one out of three cases where consumptives married three wives, one wife survived, and out of nine cases where consumptive husbands married twice, the last wife survived in three instances, giving a total of thirteen husbands to thirty-one wives, of whom twenty-seven died and four lived in apparently good health. It would appear that the infecting husbands were often in an early stage of the disease when infection took place, and some survived their wives by many years. 2. Infection through the air passages by inhalation. Though it is improbable that inhalation is the principal means of lung infection, there is every likelihood of some infection taking place through the upper air passages, and that the bacilli enter the lymphatics of the mouth and infect the lymphatic glands of this region and the tonsils, which are often the seat of tubercle. The frequent occurrence of strumous submaxillary and cervical glands may be due to this cause. 3. Infection through the intestines. The most important item in this form of infection is that of milk and meat, and after the conclusive evidence of the British Royal Commissioners, confirmed by numerous other authorities, there can be no longer any doubt as to the danger to the human body, and especially to children, from bovine tubercle bacilli contained in milk. The danger of infection from the meat is not so great. 4. Infection through the skin and mucous membranes by wounds. This is not a common method of infection, but sundry cases are on record which prove its possibility and indicate the undoubted danger from that source. 5. Hospital infection. The statistics our author refers to do not testify to much danger of infection to those who have the care of consumptives, but show that with proper precautions such service is quite safe. At the same time occurrence of tuberculosis among the porters, especially among those who handle the sputum, demonstrates where the true danger lies, and inculcates the importance of dealing effectually with this element of danger. The writer says that ingestion of tuberculous material by the intestines is the commonest, inhalation by the air passages comparatively rare, except that which occurs in the upper air passages, affecting the lungs through the lymphatics. Infection through wounds of the skin and mucous membrane is not common, but occurs among those who handle sputum and other tuberculous material where proper precautions are omitted. Infection by coition, though it occurs occasionally, is rare. Finally, all infection from consumptive patients can be avoided if the well recognized precautionary measures are adopted and carried out thoroughly.

Retroversion of the Uterus.—Brewis, in The Edinburgh Medical Journal, says that after curetting the uterus, an incision should be made immediately above the pubes, extending for a distance of about two and one-half inches. The incision should be made through skin, superficial fascia, and fat. Retractors should then be placed at one end of the wound, one being placed parallel to Poupart's ligament, the other parallel to the inner aspect of the thigh. Strong traction is now made with those retractors, so that the edges of the wound are widely separated, and the inguinal canal area is exposed; but before reaching the inguinal ring, a well defined layer of deep fascia has to be reflected. This is best done by dividing it parallel to the fibres of the external oblique until the external opening of the ring is exposed. The suprapubic transverse incision has two advantages over the one commonly used. Its position above the pubes renders it less liable to contamination, and it also permits of free retraction and good exposure of the inguinal area. Before proceeding further divide the intercolumnar fascia, pick up with a hook the mass, filling up the external ring, then separate carefully the ligament from the fascial sheath. Having done this, you will be able to draw out the ligament. In doing so make gentle, steady traction, and withdraw it until it presents a distinct shoulder. The

indicates that a point near the uterine horn has been reached. Treat the ligament of the opposite side in a similar manner. Divide both ligaments near the pubic spine and suspend them. Make equal traction on both to keep the uterus in the middle line. Pass two fingers of the right hand into the vagina to ascertain that the fundus is in the desired position, and at the same time introduce a Hodge pessary. Pass a stout catgut suture through each ligament at the outer end of the ring, passing the suture through Poupart's ligament, the round ligament, and the external oblique muscle successively. Draw the ligature tight—take care not to include the nerve. Close the external ring carefully with strong catgut. The ligaments are now anchored, but for additional security pierce the aponeurosis in the middle line and again about an inch from the external ring and draw the detached end of one ligament through. Repeat this manœuvre on the other side, and suture both ligaments to the fascia in the middle line, and also at the other points where they emerge through the aponeurosis. If the ligaments are long enough, the ends may be farther carried down to each pubic spine and fastened there. Bring the fat and fascia together with medium catgut, and, lastly, close the skin wound with a subcuticular stitch of fine catgut. Keep the patient in bed a fortnight. Remove the pessary before dismissal. The article is well illustrated.

Treatment of Severe Arthritis. Schawow (Deutsch. med. Woch.) speaks highly of the beneficial effects of sulphur waters, in combination with massage, gymnastics, stasis, and electricity, in the treatment of the chronic forms of this disease. Acute articular rheumatism is usually cured by thirty baths, though the same number of baths and more taken at home may have no effect. In arthritis deformans and chronic articular rheumatism the treatment is naturally extended over a longer period, though the good effects do not admit of dispute.

The third group includes chronic progressive arthritis, a much more serious disease, which is not influenced by the salicylates and which progressively affects all the joints and is often fatal. In certain respects it resembles the gonorrhœic form, but no specific germs have yet been discovered.

Fibrolysin injections, especially in the more chronic, progressive type, have been found a most valuable adjuvant in the treatment, and have brought about remarkable results when all the other measures failed. As a rule, 30 injections of 2.3 c.c. each were given, one daily, into the gluteal muscles. Improvement was generally noticed only after the twentieth injection. No after-effects were observed, except in a few cases a slight diarrhea. Even patients with valvular disease and lung trouble stood the injections remarkably well. The swelling of the joints disappears, the active and passive mobility returns, and a most marked change in the general condition can be noticed. Fibrolysin acts as a lymphagogue, increases the hyperemia, and stimulates chemotaxis. As a consequence, the firm connective tissue will be softened.

Carbon Dioxide Snow in Dermatology.—Sutton, according to the Dublin Medical Journal, has been using carbon dioxide snow in his work for almost a year, and, during that time, has employed it in 108 cases. The results in some instances were most excellent, in others they were disappointing. At present he is confining its use, for the most part, to a rather limited number of pathological conditions—nævi, lupus erythematosus, chloasma, senile keratoses, plantar and palmar warts, obstinate circumscribed patches of chronic eczema and seborrhœic dermatitis, and superficial epitheliomata. In eighteen cases of nævus the results have been very good, especially in the larger pigmented growths and the superficial vascular ones. It seems hardly possible that one should secure satisfactory results in the deeply seated vascular varieties. In order to destroy them the vessels at the base must be obliterated, and this would be difficult to accomplish without extensive destruction of the overlying tissues. For the removal of small moles, from the size of a pinhead down, he prefers the electric needle. It is in dealing with the large, flat, or slightly elevated, pigmented, smooth, or hairy nævi that carbon dioxide snow proves most valuable. In these he has found it superior to any other agent. In the removal of tattoo marks his efforts were not crowned with success, repeated applications for forty-five seconds failing to remove the pigment to any appreciable extent. A spot of chloasma is readily destroyed by a short period of freezing (from twelve to twenty seconds, with a moderate degree of pressure), and equally satisfactory and speedy results can be obtained in circumscribed patches of chronic eczema and seborrhœic dermatitis. In lupus erythematosus the effects are quite good. The writer found the snow to be a most excellent caustic for the destruction of senile keratoses. One application, of thirty seconds' duration, generally is sufficient. In dealing with superficial epitheliomata it is best to thoroughly freeze the lesion for forty or forty-five seconds; then, after allowing the tissues to thaw, reapply the refrigerant

for a half minute or longer. In the cases treated in this manner the results apparently have been almost ideal. The cosmetic effect is almost as good as when the x-rays are employed, and the speed, simplicity, and economy of the method are greatly in its favor. Plantar and palmar warts, which are so resistant to ordinary therapeutic measures, promptly and permanently disappear after one or two sixty second applications.

Some Oriental Suggestions in Matters of the Healing Art.—Sandler says, according to The London Medical Lancet, that the Moslems are addicted to the queerest practices for purposes of healing or alleviating bodily pain. A Turk, for instance, in distress or suffering from some disease, however severe, knows of no better remedy than to fix a piece of his dress, torn off with true Oriental equanimity, to an iron bar of some saint's tomb, or to drink water from a tumbler into which he has previously put a sheet of paper with writings from the Koran. Sometimes he will take a jar, the interior of which has been written all over with strange formulæ and signs. He will then fill it with water, wait till these formulæ and signs have been thoroughly dissolved, and drink the singular solution with an absolute faith in its wonder working efficacy. Sheltered by the sombre cypresses of the great Mahomedan cemetery at Scutari (the ancient Chrysopolis, on the Asiatic coast of the Bosphorus) there stands in picturesque solitude the tomb of a horse. Every Friday afternoon Turkish mothers carry to that tomb their crippled children to be submitted by a select "khodja" (priest) to an extraordinary course of treatment. These children are dragged, with their diseased limbs dangling over the hillock, from one end of the tomb to the other and then back again in the same fashion. The occult influence emanating from this hillock is supposed to be an all efficient panacea. It is not difficult to trace in this case the crude, imperfect association of ideas. The horse has long been considered an emblem of vigor, typifying, as Ruskin says, "the flow and force of life." Hence the belief of the Oriental, inherited, no doubt, from the Greeks, in the all conquering virtue and influence of occult and mysterious effluvia which are supposed to emanate constantly from a horse's tomb. The wearing of a necklace of blue beads or of garlic as a potent means of keeping away disease or of warding off the evil eye is quite a universal matter of sincere belief in the whole of Turkey. This superstition is shared, as is well known, by the lower classes of many a country in civilized Western Europe. There, however, it is not so universal and flagrant as in the Orient. There is scarcely a house in the Moslem, Greek, and Armenian districts of the population of Constantinople which has not hanging above its entrance door a collection of garlic, and scarcely a beast of toil which has not attached to some part of it a string of blue beads. Among the uneducated it is impossible to find an individual who does not pin his absolute faith to the all healing power of such charms, especially of blue beads, which are supposed to be an unfailing panacea against every possible ill.

Bacteriologic and Serologic Investigations in Scarlatina.—Schleissner (Fortschritte der Medizin) examined the blood in a large number of cases, and came to the following conclusions:

1 It appears that in those cases of scarlatina in which examination can be made early enough—before advent of angina—almost exclusively streptococci are found upon the tonsils, which on inoculation and cultivation upon beef serum develop in nearly pure culture.

2. In a large number of cases of scarlatina streptococci can be cultivated from the blood, without their presence in any way increasing the seriousness of the prognosis.

3. The sera of scarlatina patients in the 2nd to 5th week give with emulsions of many streptococci cultivated from scarlatinal blood fixation of complement; i. e., they contain streptococci antibodies. These bodies do not appear to be present in the first week; in the sixth week they disappear from the blood; the acme of their formation appears to be reached about the tenth day.

4. Differentiation of the various kinds of streptococci can not with certainty be made by means of complement fixation.

Exophthalmic Goitre, as a Sequel to Tubercular Affections.—Hufnagel (Munchener Med. Woch.) observed six patients, all women, who presented tuberculous catarrh of the pulmonary apices, besides a fully developed exophthalmic goitre, with uniformly distributed struma of soft, elastic consistency, bilateral exophthalmus, not combined with retraction of pupils, severe persistent tachycardia, as well as nervous and neurasthenic disturbances. The association of the two diseases is not so very uncommon, also in the case of children. Among 1246 tuberculous children who came under treatment during the past year, there were six affected with apex catarrh and exophthalmic goitre. One of these children presented the noteworthy findings that a former attack of measles had not alone aggravated the tuberculous affection, but also the exophthalmic goitre. To these cases

should be added those of 19 children who suffered from exophthalmic goitre and scrofula, in some form, at the same time. All the signs of the disease were well marked in 12 of these cases, whereas in seven the exophthalmus was absent or only slightly marked.

Eulenburg, who combines the thyreogenic theory with the hematogenic theory propounded by Basedow, is inclined to assume that the stimulus which strikes the thyroid gland, inducing the peculiar specific changes in the composition of the blood, is determined by a primary change in the constitution of the blood. In view of the fact that according to the investigations of Liebermeister, tubercle bacilli have been demonstrated circulating in the blood in a very high percentage of pulmonary tuberculosis, it is not unreasonable to assume that the toxin formed by these bacilli represents the actual etiological noxious factor, as far as tuberculosis is concerned. The nervous disturbances, according to Eulenburg, are probably due to the action of the thyreotoxin upon the nervous system. The observations of Weonberg, to the effect that consumptives may suffer for years prior to the appearance of objectively demonstrable pulmonary changes, from nervous and neurasthenic disturbances, seem to be in favor of the possibility of a bacterial toxic action upon the nervous system.

Case of Missed Labor Treated by Abdominal Section.—Purslow (Dublin Medical Journal) mentions a case in a woman, thirty-three years of age, married twelve years, who had had four children and the year previously a missed abortion. She was first seen in September, 1907. In February she had felt fœtal movements; these continued up to June and then entirely ceased; since that time she had suffered from a rather severe constant pain in the abdomen from which she was very anxious to be relieved. On examination she was found to present the signs of full term gestation, but there was very little liquor amnii, and the uterus was hard and felt as though it were in a continual state of tetanic contraction; it was tender on palpation. The cervix was not typically softened and the os was closed. Two days after admission she was placed in the lithotomy position under anæsthesia with the intention of dilating and evacuating the uterus; it was found impossible to pass a Hegar's dilator into the uterus and the same was the case with the uterine sound. As Purslow was at a loss to explain this he suspected a fibroid in the lower segment. He therefore opened the abdomen and removed the uterus by panhysterectomy. The wound healed by first intention and the patient made a good recovery. The uterus was closely moulded to the fœtus; there was barely an ounce of somewhat turbid liquor amnii. The fœtus was the size of a full term child and, judging by the general appearance, the length of the nails, and the amount of hair, it appeared to be fully developed. The skin was of a dirty brown color; the cuticle, wrinkled and easily detached, was covered in parts with a cheesy substance which was deep yellow as if stained with bile. The bones of the skull were loose and moved easily as one pressed on the scalp. The wall of the uterus was about half an inch in thickness; the muscle was pale and easily split into layers. The placenta was situated almost centrally over the internal os and lined the lower two-thirds of the uterus; it was of very firm consistence. A thin gray membrane separated the uterus from the placenta and remained attached to the former when the latter was removed. The specimen was quite odorless. Microscopically, the placenta showed a finely scattered calcareous deposit, the villi had undergone hyaline degeneration, and there was old thrombosis of the intervillous sinuses. There was a considerable amount of fibrous tissue scattered among the muscle fibres of the uterus, but the muscle itself did not show any marked change. The walls of the arteries were thicker than usual, many of the large blood spaces were filled with old thrombi, and, in some, organization of the thrombus was well marked.

Cancer of the Penis.—Don, in the Edinburgh Medical Journal, says that syphilis alone can be confounded with cancer of the penis, and a short, sharp course of iodides, with removal of a small part for microscopical examination, will clear up the diagnosis. The precancerous conditions are: 1. A surface shedding of the epithelium and a vascularity of the deeper layers, with much leucocytotic infiltration and induration. 2. At first only a marked thickening of the epidermis or leucoplakia, either uniform or only over the papillæ, producing horny or filiform processes. 3. A condition resembling "psoriasis præputialis." The mode of spread is: 1. Early involvement by emboli of the nearest glands through the lymphatic vessels. 2. Penetration locally into the neighborhood. This is a comparatively slower process. 3. Permeation along the lymphatic vessels. Here the infection must pass along the whole length of the penis till it reaches the trunk, and consequently the spread by permeation is not of vital consequence. Infection of the lymphatic glands is much earlier than permeation of the lymphatic vessels would ac-

count for, and permeation into the scrotal tissues has not been observed till late in the disease. The parts likely to be infected all lie along the dorsum of the penis and in either inguinal region, but when the bulb and the membranous urethra are affected, infection may already have reached the intrapelvic glands, and removal of the whole penis is necessary. Even then the chance of a cure is small.

The Zittman Treatment of Syphilis.—Lawson (Journal of the Royal Army Medical Corps) says that the Zittman treatment of syphilis was first commenced at Netley in October, 1904, following the recommendation contained in the first report of the Committee on the Treatment of Venereal Diseases and Scabies in the Army. Since then 183 patients have been through the course. Forty-two of these were put through a second course, ten a third course, five a fourth course, two a fifth course, and two a sixth course, making in all 243 cases.

Nearly all the patients improved generally; a little more than half of them gained weight. Twenty-four showed no improvement. Each course lasted fifteen days. The evening before treatment is begun the patient is given pills containing 2 grains of calomel, together with extract of colocynth and hyoscyamus. Free diet is ordered; the patient is kept in bed, except for an hour in the evening. The temperature of the room is maintained at 80° F. at least. The first four days the patient drinks a half-pint of a hot decoction at 9, 10, 11, and 12 noon. This decoction contains a small modicum of mercury. At the same day at 3, 4, 5, and 6 he drinks a half-pint of a cold decoction made up of sarsaparilla flavored with lemon, cardamom, and glycerin. The day the patient gets up he is given two purgative pills. The treatment is continued till the fifteenth day, when it is discontinued, and the patient returns to a ward at the usual temperature. The amount of mercury in the decoction is extremely small, since the decoction is strained before being administered. It is found that men put through the course without the addition of mercury experienced as much benefit as those who took the mercury.

The essence of the treatment appears to be prolonged diaphoresis and diuresis, brought about by drinking large quantities of highly spiced liquids, and being in a room at a high temperature.

The patient suffering from severe rashes, rupia, destructive lesions of the nose, and syphilitic rheumatic pains in the limbs and joints appears to benefit much from the treatment. Affections of the mucous membranes are apparently not helped.

Lysol Poisoning from Intra-uterine Irrigation.—Piltz (Munchen. Med. Wochenschr.) says that lysol has been since its introduction extensively used on account largely of its alleged strong antiseptic properties combined with non-toxicity. Many authors have, however, reported fatal cases of lysol poisoning. Such poisoning is characterized by symptoms of acute nephritis, acute cerebral and peritoneal irritation, and by the presence of phenol and tribromphenol in the urine. It has supervened after the use of a 1 per cent. solution as an intra-uterine douche. Craemer and Hammer state that the drug enters the general circulation through the intra-uterine veins by way of the peri-uterine venous plexus. He doubts if a ½ to 2 per cent. solution of lysol can injure healthy kidneys, but he advises the exercise of great care in its use where renal lesions are suspected. The prognosis of poisoning is good, as the patients recover completely, the kidney nephritis being transitory like that originating from the toxins of scarlet fever.

Congenital Heart Disease and Polycythemia.—Weber (Edinburgh Med. Jour.) mentions the case of an undeveloped man, 22 years old, weighing 85 pounds, with marked cyanosis, drumstick fingers, systolic murmur in the middle line, orthostatic albuminuria, in whom was found the unusually high polycythemia of 10,300,000; leucocytes 7000. The hemoglobin was 160. Such a high count has rarely been recorded. In other respects the red blood corpuscles appeared normal.

A Plea for a Rational Puerperium.—Haultain says that for many years he has thought that the conduct of the puerperium simulated more that of the convalescence from a severe illness than the management of the sequel of a normal function. The author found the same views expressed in a paper by von Alvensleben, Das Aufstehn der Wochnerinnen in *den ersten Tagen des Wochenbettes*, and publishes now his statistics. The puerpera, if willing, was encouraged to sit up in bed to meals on the second day. As early as she felt inclined thereafter she was allowed to leave her bed and walk to the fireside, where she sat for an hour. On the following day this was repeated morning and evening. The next day two hours, morning and evening, were spent out of bed, the patient sitting and walking a little if she so desired. The fifth day after rising was practically spent out of bed with the exception of a few hours' rest in the afternoon, and on the tenth day the patient left the hospital. The number of patients who followed this line of treatment was one hundred, all of whom

sat up in bed on the second day; forty rose on the third day; thirty-five rose on the fourth day; twenty-five rose on the fifth day. Of the one hundred cases, forty-seven were primaparæ and fifty-three multiparæ. Each was carefully examined before leaving the hospital, and as many as possible six weeks later. The morbidity in these cases—that is, a temperature over 100° F. or pulse over 90 for twelve consecutive hours—was represented by three cases. In two infective temperatures developed on the third day. One of these patients left the hospital well on the sixteenth, the other on the twenty-eighth day. Pelvic examination on the day of leaving the hospital (tenth or twelfth day) showed the pelvic organs to be normal, except in two cases, where a slight retroversion of the uterus was present. In one there was considerable varicosity of the veins of the legs, but the woman remarked that it was not nearly so bad as after previous confinements—this being her seventh. All the patients examined six weeks and more after confinement showed involution to be thorough, and the position of the uterus normal, with the exception of two, being those previously noted as having retroversion. It was most interesting to hear the uniformly eulogistic terms in which, without exception, the women described their so-called convalescence while the favorable comparisons made by multiparæ with their former confinements was most convincing. Many voluntarily expressed the opinion that they had never felt so well previously, and from the others when asked there was no dissentient voice. He says that it is difficult to understand why woman has been condemned for thousands of years to so much enforced idleness. In consulting ancient literature there is no evidence that the prescription was founded on a physiological or even a physical basis. In primitive races immediate exercise was the usual custom, the woman, to cleanse herself, at once after the birth of the child plunged into the lake or stream near which the confinements were usually conducted. In what might be termed "the religious epoch," when priests assigned to themselves the position of obstetrical specialists, this practice seems to have been discontinued, and woman subjected to the ordeal of purification, which varied in detail amongst different authorities, but mainly consisted in enforced solitude for from ten days to three weeks, which was chiefly spent in the recumbent posture, doubtless from want of anything better to do. From this probably arises the term "confinement," so generally used for the act of child bearing.

Malformations of the Heart.—Keith, in the London Lancet, says that our knowledge of the heart has advanced since Peacock's time, who in 1866 published his last edition of Malformations of the Human Heart, still the standard English work on this subject. One of the greatest discoveries since that time is now only dawing, but every year increases our assurances of its truth—viz., that there is a fourth part or chamber in the mammalian heart which hitherto we have taken no cognizance of. The three parts of the mammalian heart at present recognized are (1) the sinus venosus, (2) the auricles, and (3) the ventricles. The fourth part is the bulbus cordis, which is so well seen in the shark's heart. It is usually supposed that the bulbus cordis has completely disappeared from the mammalian heart, but now we have good reason for believing that, in the same manner as the sinus venosus has become incorporated in the right auricle, the bulbus has become included in the right ventricle, forming that part loosely termed its infundibulum. The credit for this discovery belongs to Alfred Griel, prosector in the University of Innsbruck. He traced the fate of the bulbys by a prolonged study of the hearts of developing vertebrates. Independently of him Keith has reached the same conclusion from an investigation of malformed human hearts and of the hearts of vertebrate animals. Professor Peter Thompson has recently identified and described the development of the bulbus in an early human embryo. A large number of the very commonest malformations of the human heart are due to an arrest of the process which ends in the incorporation of bulbus cordis in the right vetricle. The great majority of cases of congenital stenosis of the pulmonary artery are of this nature. Our author makes 270 specimens of malformed hearts the subject of his lecture in reference to the bulbus cordis. and says that applying our presence knowledge of the development and comparative anatomy of the heart to the explanation of these abnormalities, we find ourselves hampered at the very outset by a complete ignorance of the functional nature of the bulbus cordis. It is especially large in the shark tribe, and is often lined with valves and thickened endocardium throughout. Its musculature is striated but the fibres are more fusiform and less branched than in the other chambers. The nerve supply is abundant. Systole occurs in it subsequent to contraction in the ventricles. Somehow its function is connected with the gill of respiratory system; it is with the respiratory system that it is correlated. When the gills become

replaced with lungs and the aortic stem divided into systematic and pulmonary trunks as in the amphibia, the part of the bulbus at the origin of the aorta atrophies more than the par connected with the pulmonary artery. In reptiles a part of the bulbus musculature persists and can be distinguished from the proper ventricular muscle; our author has also seen it well marked in an abnormal human heart. In the hearts of birds and mammals the bulbus musculature completely disappears, but its cavity persists, undergoes a great expansion, and forms the infundibulum of the right ventricle. How far the infundibulum is formed by a downward expansion of the bulbus cavity into the right ventricle and how far it is formed by an upgrowth over the vetricular muscle is difficult at present to decide, but the evidence of malformed hearts points to the former process being the true one. What the exact function of the infundibulum of the mammalian right ventricle may be is difficult at present to say, but its origin, its comparative anatomy, and the arrangement of its musculature make it certain that it has something to do with the regulation of the blood supply to the lungs. There are many clinical phenomena connected with this part of the heart which need further observation and explanation.

Acute Purulent Ophthalmia.—Henderson, in the British Medical Journal, reminds us that the most frequent cause of purulent ophthalmia is the gonococcus, and if early treatment is not successfully adopted the loss of the affected eye is an event only too probable.

If, as is frequently the case, only one eye is affected, the surgeon should first examine the apparently sound eye, and should this show no sign of inflammation, take immediate steps to protect it from contamination. This is best done by the use of a Buller's shield, but until this can be procured or improvised the sound eye can be efficiently protected by means of cyanide gamgee tissue secured fixed with a bandage.

When a Buller's shield is employed, constant attention must be directed to the strapping over the side of the nose, and a venthole should be made near the outer part of the eyebrow by inserting a small piece of drainage tube. The shield must not be removed until all discharge from the affected eye has ceased. The next step is the careful removal of all discharge from the affected eye by gentle irrigation with warm one per cent. boric acid lotion. The surgeon or attendant should always wear protecting goggles while engaged in the treatment of any of these severe ophthalmias. As soon as the eye is sufficiently clean the lids should be gently separated and the cornea examined. Should there be any doubt as to the presence of any ulceration, a drop of fluorescine solution is instilled. If the cornea is as yet unaffected, the lids are gently inverted without allowing anything to come in contact with the cornea—the slightest abrasion being sure to become infected, with disastrous consequences to the eye—and painted with a two per cent. solution of silver nitrate by means of a wisp of absorbent cotton wrapped around a glass rod. If the conjunctiva is very brawny and edematous, this painting had better be omitted. There is no necessity to neutralize the excess of silver solution; it is sufficient to mop the conjunctiva with a pledget of wool.

The patient is kept in bed and provided with some absorbent cotton and a basin of warm boric acid lotion, and instructed to wipe away the discharge as fast as it is secreted. Every hour or two during the day and at least every four hours during the night the conjunctival sac is thoroughly irrigated with the same lotion from an undine by the attendant. A little boric acid ointment should be smeared on the lids to prevent them from sticking together.

The silver application should also be repeated daily, the strength and frequency of the application being gradually diminished as the case improves.

If the cornea becomes affected, one per cent. atropine should be instilled every four hours, and if the discharge is still copious and an actual ulcer has made its appearance, two per cent. silver nitrate solution should be stippled into the base of the ulcer, but if the discharge has nearly ceased, cauterization with pure carbolic or the galvano-cautery will be advisable. If the ulcer is obviously about to perforate, as shown by the bulging of Descemet's membrane, a small perforation should be made so as to allow the aqueous to escape slowly, and thus prevent a large perforation with prolapse of iris. The later treatment of eyes in which perforation of the cornea has taken place and left a prolapsed iris adherent to the cornea falls outside the scope of this paper; it is sufficient to state that unless operative steps to free the iris or make an iridectomy are taken the eye will be lost through secondary glaucoma.

Remarks on Common Types of Sore Throat.—Green, in the British Medical Journal, mentions the difficulties that sore throats present both as to diagnosis and treatment, especially in small children. In considering the sore throat of scarlet fever he enumerates four different conditions of

sore throat that are met with. (1) The tonsils, faucial pillars, palate, uvula, and oropharynx are swollen and of a deep red color. Sometimes there is inflammatory edema. (2) The appearance presented may be that of follicular tonsillitis. (3) A definite membranous inflammation may occur; the membrane is soft and leaves superficial ulceration as it disintegreates. (4) Marked and deep ulceration occurs in the septic variety; the ulceration may spread upward to the nasopharynx and downward to the epiglotis and larynx; the soft palate may be perforated or the uvula may slough off. The treatment of sore throat in these diseases deserves more attention than is usually paid to them. The application of whatever fluid is chosen with a brush is preferable to the attempt to use a gargle, especially in children. The physician should make the application at least once a day himself. In these cases it is advisable to douche the nasal cavities, and for this purpose the glass douche is preferable to the spray. As regards diphtheria, the diagnosis is often attended with difficulty, especially when the membrane is confined to one or both tonsils; Dr. Green has met cases in which only one tonsil was covered with membrane, but bacteriological examination revealed the specific organism. It was important that these cases should be recognized. Vincent's angina is a condition met with more frequently than is generally supposed. There are two varieties, but he considers only the ulceromembranous. When a gray or yellowish membrane is formed on the tonsils and palate it is difficult to diagnose the case from diphtheria or streptococcus infection without a bacteriological examination. Acute streptococcus infection can be differentiated from diphtheria by taking a swab, as the membrane is difficult to remove and the surface of the tonsil bleeds when the membrane is removed. In this condition a culture from a swab will give either a pure growth of Streptococcus pyogenes or a mixed growth of staphylococcus and streptococcus. The writer thinks it best to give 5 to 10 c.c. of polyvalent serum and to swab the throat with a solution made by dissolving a 10-grain powder composed of equal parts of sodium bicarbonate, sodium chloride, and potassium chlorate in an ounce of water; this should be done every two hours or oftener if necessary. This solution will dissolve this membrane or diphtherial membrane if thoroughly applied. It is quite useless to paint these throats with antiseptic solutions as they only tend to harden the membrane. Retropharyngeal abscess should be opened by means of a 3 inch incision along the posterior border of the sternomastoid muscle. In adults, at any rate, this method is attended with less risk than opening through the pharyngeal wall. The only condition that could be mistaken for a retropharyngeal abscess in an adult is a large gumma. Chronic retropharyngeal abscess in children is not at all uncommon, and the author always performs the external operation, and, up to the present, has not lost a case. In tonsillitis a careful examination of the heart should be made, and if cardiac trouble is discovered small blisters should be applied over the cardiac area. Gargles are worse than useless in these cases; it is better to give the patient guiacum lozenges to suck freely and to apply a warm alkaline lotion to the throat with a brush several times a day. He prescribes sodium salicylate, sodium bicarbonate, and ammonium bromide; if there is a high temperature, tincture of aconite is added. There could be no doubt about the expediency of removing tonsils which are the seat of chronic tonsillitis or which have been subject to recurrent attacks of acute inflammation. He has made a pair of forceps with the blades cutting up and down so that they might fit in between the pillars of the fauces, which were in danger of being injured if the blades cut from before backwards. In regard to malignant growths sarcoma is the most common one which affects the tonsils. If seen before the glands are affected the tumor can in many cases be shelled from its capsule with little trouble and with little, if any, hemorraage. Even if ulceration has occurred and the condition of the patient is good an attempt should be made to remove the growth. In the treatment of both sarcoma and carcinoma of this region with the x-rays and radium he says that not only is the rate of growth not checked, but in some cases it is accelerated. In secondary syphilis of the larynx the best local application is a solution of chromic acid (10 grs. to the ounce). Chronic pharyngitis is sometimes due to some constitutional defect, and its successful treatment depends upon ascertaining the cause. If the granules do not disappear under proper treatment they should be destroyed with the galvanocautery blade, only a few being touched at a sitting Where the swelling of the inferior turbinated bone causes obstruction the application of the galvanocautery to the mucous membrane of the offending turbinates may cure the condition, but in some cases it may be necessary to remove the anterior one third of the bone; this may be done under local anesthesia. In doing this, he uses scissors which he had made with the lower blade a little longer than the upper one. After the cut is made the loop of the cold snare is passed around the cut end,

and by tightening it up the amount deemed necessary may be removed. The writer mentions laryngitis and the importance of an early diagnosis in laryngeal tuberculosis and malignant disease of the larynx. In intrinsic cancer of the larynx early diagnosis and prompt operation give better results than follow the removal of cancer in any other part of the body. Very excellent results have been obtained since the method of attacking the disease by the external operation of thyrotomy has superseded the older methods of intralaryngeal removal. In extrinsic cancer of the larynx ulceration occurs early and the glands are involved much earlier. Even in these cases an effort should be made to extirpate the disease if the condition of the patient warrants it. It should be laid down as an absolute rule that when an adult complains of hoarseness or alteration of the voice of several weeks' duration, the larynx should be carefully examined, and if there is diminished mobility of a vocal cord, with or without definite tumor, the help of a skilled laryngologist is necessary and should be promptly obtained.

Chronic "Rheumatic" Myositis.—Yawger in The London Medical Lancet says that the most frequent cause of the so-called gouty pain is a form of chronic myositis. In a search of literature he had been amazed to learn of the frequency of the development of chronic myositis in muscles other than those of the head and neck, and his attention has also been attracted to the errors in diagnosis to which this condition had given rise. Among the causes affecting this condition are heredity, climate, and weather. Temporarily infiltrated muscles have been observed in a child two years old. They may appear at almost any time of life, and are common in old age. It is probable that no voluntary muscle enjoys an immunity, but there are sites of predilection, the most common of which is in the muscles of the head and neck. The gluteal, lumbar, and deltoid regions, and calf muscles are often involved. The muscles may be invaded at their points of insertion, or the infiltrations may appear in the bodies of the muscles; at times the infiltration extends to the periosteum to which the muscles are attached, and also to the fascia. The pathology of these diseased muscles is largely hypothetical. These deposits may develop in muscles that are over-worked, in those not sufficiently exercised, in those that are much exposed, and where an injury has been sustained. The symptoms are those of pain, which may be sharp and cramplike, or aching sensation. If the swollen muscle impinges upon a nerve trunk there may be a true neuralgic pain. At times there is paresthesia. There are often associated symptoms in various parts of the body, as depression of spirits, mental torpor, unnatural drowsiness, marked susceptibility to cold, torpidity of the liver, indigestion, painful spasms of the calf muscles, general myasthenia, pyorrhea alveolaris, and hypersensitiveness of the teeth. There is only one lesion likely to be mistaken for an induration, and that is a gumma. The mistakes to which these rheumatic deposits give rise are numerous. Many cases of cephalalagia are of this variety; involvement of the intercostal muscles has been taken for intercostal neuralgia and pleurisy; in the abdominal wall they have been mistaken for acute and chronic appendicitis, gastric ulcer, abdominal and pelvic adhesions, calculus of the kidney, and floating kidney; involvement of the gluteal region for sciatica and hip joint disease; in the neck they have been mistaken for swollen glands: the frequently complained of growing pains of children he believes are due to this condition. A number of cases are cited illustrating these mistakes in diagnosis.

The Operative Treatment of Trigeminal Neuralgia.—Hulles (Wiener Med. Wochensch.) presents an exhaustive review of the results obtained in von Eiselsberg's clinic, comprising 23 cases of neurexaiesis, with 22 severe recurrences and no cures; 13 resections at the base of the skull, with 3 cures and 10 recurrences; 10 extirpations of the Gasserian ganglion, with 8 cures. From this experience he draws the following conclusions: The medicinal treatment may alleviate the pain for a time, and even cause its disappearance, but permanent results are unobtainable. 2. Peripheral neurexaiesis generally leads to a recurrence. 3. After resections at the base of the skull recurrences are less frequent than after neurexaiesis. 4. Extirpation of the ganglion offers the most reliable chance of a cure, provided it be completely removed. He suggests that in mild cases medicinal treatment be pursued, since it gives about the same results as neurexaiesis and does not subject the patient to the risks of operation, narcosis and infection. The administration of aconitin and intraneural injections of alcohol, repeated when necessary, can be recommended. If the disease, however, is of severer character and has involved two of the branches of the trigemiuus, resection at the base of the skull is advisable. In very severe cases, however, in which all three branches are diseased, resort should at once be had to extirpation of the ganglion.

The Etiology of So-Called Congenital Dislocation of the Hip.—Thompson, in The London Medical Lancet, says that this condition is of much greater frequency in girls than in boys. It is generally directly due to pressure exerted on the hip joint during the adoption of the erect attitude of such a nature as to produce displacement of the head of the normal femur from a nearly normal acetabulum. The usual history of such a case is this: The patient is a well-developed girl in whom the condition becomes more marked as she assumes the erect attitude. The child is rarely seen until the third or fourth year, when the physician has to decide between the congenital or acquired formation of the malady. He generally chooses the former, basing his opinion on the results of a few dissections, on cases seen at a very young age, and on certain pelvic conditions. He believes that the condition arises after birth from certain anatomical peculiarities of the female pelvis. When the erect attitude is assumed the female hip joint is not so well calculated to resist the upward thrust of the femur as is the male joint. It depends much more for its security on the rim of the acetabulum, which is cartilaginous during the first two years of life, than does the male joint. In other words, the head of the male femur is much more securely fixed in the hip bone than is the head of the female. The acetabulum lies in the male hip bone, while in the female it rather rests upon it. Moreover, the joint in the female works at a greater mechanical disadvantage. Hence the so-called congenital dislocation is really in many cases a static dislocation. He illustrates his meaning by some well-defined diagrams. With regard to treatment, two classes of cases may be made. In the first anatomical reduction can be easily and permanently accomplished, while in the second this is impossible, even under the most skillful manipulation. Illustrative cases are given. If the author's views are true, many other changes which have been regarded as primary and as possible causes of the dislocation are really secondary. These are enumerated as follows: Small and triangular acetabulum, small os innominatum, head of femur flattened and smaller than usual, shortening and anteversion of the femoral neck, coxa valga, hour-glass constriction of joint capsule, stretched or absent ligamentum teres, and shortening of leg below knee. These conditions are discussed seriatim by the author. He summarizes his views as follows: The history of a well-developed girl with dislocation of the hip rarely goes back before the adoption of the erect attitude. The fact that the child is well developed is a considerable factor in favor of the condition being static rather than congenital. The female hip joint is weaker and acts at a greater mechanical disadvantage than does the male. The congenital theory entirely fails to explain the greater preponderance of the lesion in females, but the preponderance is explained by a reference to the comparative anatomy of the joint in the two sexes. Moreover, the suggestion that the condition is static more easily explains the different conditions which may be met with.

A Case of Tubereulous Nephritis as a Sequel to Angina.—Theodor (Archiv f. Kinderheilkunde) says that the frequency with which nephritis follows upon a mild case of angina, more particularly in children, may be ascertained by carrying out routine examinations of the urine after every attack of angina. Just as it has become a common professional measure to examine the urine invariably after an attack of scarlet fever as to the presence of albumen, this should likewise be done in cases of angina, in order to guard against grave sequelæ. He observed a case of nephritis taking an unusual course after a mild attack of angina. The presence of tubercle bacilli could be demonstrated. The child succumbed three years later to acute miliary tuberculosis. A previous observation concerned a girl 13 years of age who had suffered from a mild attack of sore throat eight days before going to the seaside for her summer vacation. The trouble lasted only two days and was not associated with a high temperature. After her arrival at the seaside the child went in bathing on two occasions and then fell ill, with sudden fever and lassitude. The only symptom of disease that could be demonstrated was a slight œdematous swelling of the eyelids. The examination of the urine, however, showed the presence of albumen contents above 12 per cent. As soon as the third day uræmic convulsions set in, and the patient died within 24 hours from uræmia.

Heart Disease.—Barr (Brit. Med. Jour.) says that drugs should only be used when necessary, and always under strict medical supervision. People, unfortunately for themselves, have taken drugs indiscriminately, without advice of the profession—a grave mistake, especially in heart diseases. Cardiac tonics are thus taken; and the resulting continued high arterial tension, maintained over a long period, may work disaster for the aorta. It is better to lighten the load of a jaded horse than to apply the whip; remedies which lessen the work of the heart are often more effective than cardiac tonics. When the balance between

the two sides of the heart is effectively maintained drugs are, as a rule, unnecessary, except to regulate the blood pressure; when this is high decalcifying agents and moderate cathartics answer best. For cardiac failure such tonics as digitalis, squills, strophanthus, caffeine, strychnine and the lime salts answer best; their use should be discontinued immediately compensation is restored. For tendency to thrombosis or embolism such decalcifying agencies as phosphoric and citric acids and their soluble salts are to be used. In cases of thrombosis and pulmonic embolism with urgent symptoms strong ammonia should be freely used. (Ammonia and spirits of chloroform, aa five minims, in a wineglassful of barley water every hour or half hour.) In mitral stenosis we may have free hemoptysis, which should not be checked; it is an excellent form of blood-letting. In all spasmodic affections, such as angina pectoris, the best remedies are nitroglycerine, morphine, atropine, amyl nitrite, ethyl iodide and other preparations of iodine. With very high blood pressure, among a host of remedies Barr mentions especially decalcifying agents, the benzoates, the hippurates, iodine and thyroid.

Treatment of Postpartum Hemorrhage.—Herff (Munch. Med. Woch.) deals with the treatment of postpartum hemorrhage when the ordinary means of producing contraction, such as ergot and hot applications fail. The number of deaths from complete uterine atony is considerable. The causes are of several kinds; changes in the blood which lessen its coagulability; changes in the musculature of the uterus which prevent effective contractions; changes in the walls of the blood-vessels which hinder their contraction; changes in the tissues around the uterus, such as peritonitis; anomalies of position of the placenta rendering a portion of the walls less contractile; functional changes which weaken the musculature. Henkel's method of compression of the abdomen may be of use in a few cases. A valuable method of exciting contraction is rubbing and kneading the uterus with one hand within and the other without the uterus on the abdomen, and compression of the uterus against the pupic bone. The aorta can be compressed against the spine, leaving the lower portion of the body bloodless. The tampon advocated by Duhrssen is of doubtful value. According to its originator, it acts as a foreign body, compressing the lumina of the vessels and aiding coagulation. He has made use of this method in six cases, without any success, all the women dying. He criticises the action of the tampon. If the gauze is a foreign body, why are not the placenta itself and the clots which form in the uterus just as good for this purpose? A very large amount of gauze may be inserted, and this soon becomes entirely soaked with blood. Thus the compression of the blood vessels is impossible, since they can be compressed only against a hard substance, and the tampon becomes very soft as soon as it is soaked with blood. If the uterus would contract the vessels might be compressed, but in these cases there is no muscular contraction. When the tampon is used the danger of infection is much increased. The sterized hand is a much more effective instrument, and much less likely to produce sepsis, besides giving the operator a chance to massage the uterus freely with the hands. The narrower the space in which thrombosis has to occur the quicker will coagulation take place. The tampon distends the uterus, which is the opposite of the effect desired. This is truly a last refuge in postpartum hemorrhage. In the Woman's Hospital at Basel, out of 10,000 women confined, seven have died of hemorrhage after labor, six with the tampon. He has tried injections of adrenalin in two cases, without result. He believes from his microscopic examinations that there is a pathological condition of the uterine muscles in these cases. The only effective method left seems to be the removal of the uterus by vaginal total extirpation, or supravaginal amputation. The adominal operation takes but two minutes, and then the bleeding stops at once, and the patient may be cared for at leisure. The question of sterilizing a woman is a serious one in a young primipara, but it must be solved quickl or it will be too late.

Interpretation of the Poro Uterus In Relation to the Third Stage of Labor.—Hart (Edin. Med. Jour.) deals with the theories of the mechanism of the third stage of labor. The arguments against the theory of separation of the placenta by direct shrinkage of the placental site are that it has been acknowledged by its chief advocates that the placenta does not separate at a shrinkage to 4x4 inches and it has never been demonstrated that a greater shrinkage than this occurs. He holds that when a pain has died off, the elasticity of the muscle, and especially of the interpenetrating elastic tissue, asserts itself, and we get the softer, bulkier uterus, and, above all, an increase of area of the opposed internal uterine surfaces, the two surfaces sliding on one another without separation. This increase in area is not participated in by the nonvascular, non-elastic placenta, and thus we get the disproportion between placental cite and placental area, and the tear-

ing of the spongy layer. This occurs after each pain, until at last, when both membranes and placenta are thus separated, the uterus, gatheriug itself up, as it were, expels the placenta according to Schultze's or Duncan's mechanism, which are really mechanisms of expulsion but not of separation. As regards the bearing of this theory upon management of the third stage, he says that the latter may be conducted in two ways. In the first method the attendant graps the uterus firmly, brings on pain by friction if he thinks the uterus sluggish, and reinforce each pain by pressure. This is the active method introduced by Crede. In this way the third stage may be shortened, but the practitioner will find that he has hemorrhage, and occasional retention of membranes with all their unpleasant sequelæ. If the upper edge of the placenta is at the Fallopian tube angle, he may perhaps expel the placenta and membranes, *minus* a piece of the placenta the size of the tip of the finger, and this piece may become septic. The second method is to keep the hand permanently on the uterus, wait for pains, and not to compress the uterus unless there are indications for it, the main one being hemorrhage. The size of the uterus should be noted, and only when its bulk markedly diminishes, indicating separation, should gentle expression of the uterus or pressure in the suprapubic region, according as the placenta is in the lower uterine segment or in the vagina, be employed. This method goes on the theory that the placenta is separated after the pain, that hand pressure will not separate it safely at the time, and that the safe time to use hand graping is after the placenta has separated.

Miscellaneous.

Oatmeal in Diabetes Mellitus

Pari (Cazz. degli Osped.) says that, in spite of its relative richness in hydro-carbons, oatmeal is often not only well borne by diabetics, but exercises a curative effect. V. Noorden first drew attention to this fact in 1902. It is not possible to continue for long on a diet of oatmeal alone, as nausea, diarrhea and edema may occur, so that it is well to alternate with other diabetic diets—for example, one or two days of strict dieting (flesh, ham, greens, butter, cheese), then three or four days of oatmeal, followed by one or two days of greens, and so on in a cycle. At first, after the oatmeal diet, there is a slight increase in the glycosuria, but this soon disappears and comes down to the level, or even below, that obtained by the strictest dieting. Seeing that we know so little about the actual chemical composition of the various starches, the author thinks it not impossible that the starch of oatmeal may have a specific action on diabetes. He records a case of diabetes in a young man aged 22, where the oatmeal had a decidedly good effect, and in a very short time (a few days) brought about the disappearance of the sugar, the oxybutyric acid, and very much reduced the acetone, whilst the body weight increased.—British Medical Journal.

Regulin in Constipation.

In most cases of chronic constipation there is an excessive absorption of water. so that the intestinal bacteria cannot form certain products necessary for a normal defecation. H. F. Hoffmann. therefore, expresses the opinion that perhaps the most valuable preparation recommended for chronic constipation is regulin, a pure agar-agar, containing about 20 per cent. of an aqueous extract of cascara. It is marketed as scales or tablets; the dose of the former is one to two tablespoonfuls in apple sauce or mashed potatoes, and of the latter, three tablets twice daily, after the chief meals Most other cathartics lose their strength in time, the defecation is often painful, and hemorrhoids are likely to appear. Oil injections are usually effectual, but are troublesome and disagreeable to take, while diet alone only rarely helps for any length of time. Only few patients have the time and means to resort to massage and systematic exercise. With regulin, the author claims that the intestines will soon fuctionate properly, and it is even possible to diminish the dose gradually. In the beginning of treatment, it may be necessary to resort to mild laxatives or to glycerin per rectum. Hoffmann has tried regulin in a large number of cases, including intestinal vertigo and gynecological cases, and reports the best results.—Therap. Monatshefte.

Treatment of Diabetes With Leucofermantin.

By means of a special method, Marcus could demonstrate that in diabetes there is quite regularly a diminution of the antitrypsin in the blood, provided no other severe lesions, such as nephritis, psoriasis, or advanced cachexia, are present. This low amount of antitrypsin was not due to the polyuria, since the urine never possessed antitryptic properties. It was thought also possible that a certain amount of trypsin might be carried away with the urine, but all tests in this direction were negative. Several cases could be observed for as long a period as six to eight weeks, and in every

instance the amount of antitrypsin in the blood was in inverse proportion to the degree of glycosuria.

An attempt was then made to increase the amount of antiferment in the blood by giving the patients pancreatin in large doses, with the result that the sugar increased and the antiferment diminished still more. Much better results were seen when the antiferment itself was given. The best preparation to use is the leucofermanin (Merck), since it contains more than twice as much antiferment as the blood of a normal individual. On suceeeding days 1, 2, and 3 Cc. were injected, so that 6 Cc. in all were given. The antitrypsin in the blood increased rapidly, the subjective symptoms disappeared, and the amount of sugar excreted was reduced, in one case from 2 5 to 0.3 per cent., though the diet remained the same and no other drugs were given. The leucofermantin also contains other ferments besides the antitrypsin. After two to four days a more or less pronounced erythema will usually develop at the site of injection. —Zeitsch f. experiment. Path. u. Therap.

The Incompatibility of Iodide with Pagenstecher's Ointment and Calomel.

It is well known, but constantly forgotten, that if yellow oxide of mercury ointment or calomel be placed in the eye of a patient who is taking iodine in any form, violent irritation is produced, and the morbid process instead of being arrested is accentuated. It is very easy to make this error when treating a "strumous" child suffering from phlyctenulæ with yellow oxide ointment locally, and with cod-liver oil and syrup of iodide of iron internally. Next day the child returns, with all the symptoms aggravated. Yvert (Rec. d'Ophtal., August, 1908,) in a lecture at Dijon treated of this subject, He told his hearers that the iodide acted upon the mercury compound, and produced a mercurous iodide which in the presence of an excess of iodine rapidly decomposed into free mercury and the extremely caustic mercuricriodide. The same unpleasant experiences occurred when oxycyanide of mercury was used locally to wash out the bladder of a patient taking iodide. Hollander (Berlin Society of Medicine, May 16, 1906) pointed out that this double decomposition with the formation of nascent mercuric iodide could be utilized therapeutically in cases of tubercle of mucous membranes, buccal, laryngeal, and cystic. He found that, especially in tubercle of the bladder, excellent results were obtained. The patient is given a teaspoonful of a five-per-cent solution of iodide of potassium a quarter of an hour before the local treatment, which consists of the insufflation of calomel or its injection in oily emulsion.

Yvert concluded by warning his hearers never to put calomel or yellow ointment into an eye until they had ascertained that the patient had not taken iodine, either from a medical man's prescription or in one of the patent medicines which often contain it.—British Medical Journal.

Diagnosis of Lead Poisoning.

The presence of basophile granules in the red cells is an early and extremely valuable sign of lead poisoning. A. Trautmann finds that these granules occur in anemia as well as in perfect health, but more than one hundred granular cells to the million is certainly rare. Twelve cases of undoubted lead poisoning were examined, and each showed over one hundred granular cells to the million. The actual percentage is subject to slight changes, hence it is often advisable to make two or more examinations of the same case. It would be most desirable to make regular examinations of all individuals coming into contact with lead, as intoxication could thus be prevented.—Muench. Med. Woch.

Evolution and Treatment of Tuberculosis Among Syphilitics.

Emile Sergent tells us that syphilis and tuberculosis are frequently associated in the same subject. Syphilis constitutes a prime factor in causing tuberculosis both directly and indirectly. Directly a tuberculosis may be engrafted on a syphilitic laryngitis or tracheitis; indirectly, syphilis causes a condition of the system which predisposes the subject to the reception of the tubercle bacillus. This occurrence of tuberculosis in the syphilitic may take place in the early primary or in the secondary stage. There may be association of the two lesions in the same location, as when we have a hybrid lupus. Generally the soil is such that both conditions are engrafted on it at the same time. We may have local tuberculosis in syphilitics, or pulmonary tuberculosis in syphilitics, and either condition may be the primary one. The author believes that the contraction of syphilis by a tuberculous subject is not as serious as has been thought. Provided that the tuberculous subject is in a fair general condition, he may not be very severely affected by the syphilis. In all probability syphilis is a cause of many cases of fibrous or sclerotic pulmonary tuberculosis. Tuberculosis also occurs in heredosyphilis in young subjects. In all cases except very late ones or very acute ones of tuberculosis, anti-syphilitic treatment benefits both the syphilis and the tuberculosis.

It should be so administered as not to interfere with the digestion and not to cause sore mouth.—La Presse Medicale.

Post-Mortem Caesarean Section.

This operation is undoubtedly one of great antiquity, although it is diffiult to state at what period of time in the world's history it was first performed. The *lex regia* of Numa Pompilius, by which it was enacted that in the case of a pregnant woman near full term dying undelivered the body should be opened immediately after death and the child extracted, shows that it was known to, and practised by, the Romans. That post-mortem delivery was recognized in ancient mythology is suggested by the legends surrounding the birth of Bacchus and of Æsculapius, and renders it probable that its first origins are to be sought at a very early date. Rosenbaum is, indeed, of opinion that the operation was practised probably by the professional embalmers among the ancient Egyptians.

Subsequent to the date of the *les regia*, numerous ordinances were passed for the same purpose, but it would seem that the procedure fell into disrepute possibly on account of the bad results obtained as regards the life of children. With the spread of Christianity and of the rite of baptism, which gave to the life of the unborn child an increased worth, the operation again came into favor, and in the first half of the eighteenth century Pope Benedict issued a precept in which the indications for, and the the precautions to be observed in, its performance were duly set forth.

As Hubert remarks, the Roman Catholic Church reproduced the injunction of the *lex regia* in the following decree of its ritual: "Si mater praegnans mortua sit, fructus quam primum caute extrahatur." At the present day post-mortem Cæsarean section holds a definite place in the medical art and should undoubtedly be practised in all cases in which the chance of delivering the child alive is present. In some countries indeed, for example, in the German States of Bavaria, Wurtemberg, and Saxony, the *lex regia* is still in force. In France and England the matter is left to the discretion of the attendant physician, and as a natural result in these countries the operation is undertaken very infrequently.

The reluctance of many obstetricians to perform it is explained when we study the results shown by the older statistics; thus of 299 operations of this nature performed up to the year 1888, in only 19 cases were the children extracted alive and 5 of these survived. Modern statistics are, however, much more encouraging—for example, of 14 cases collected by Bauer, 10 children were born alive, and of 28 cases collected by Dicke during the year 1875 to 1903, 28 children were delivered alive, of whom 19 survived. It must be remembered, however, that these figures are probably unduly favorable, since only successful cases are likely to be published. The chance of the child surviving will necessarily depend a good deal on the cause of the mother's death.

The researches of Breslau and Runge have demonstrated that the fetus is most likely to survive for some length of time after the death of the mother when this has taken place suddenly. In cases of high fever or of acute septic poisoning the fetus not infrequently dies before the mother.

The accounts of cases in which children are said to have been extracted alive from the uterus even after the burial of the mother, belong to the realms fiction. Of this description is the story of Francois de Civile, who on great occasions signed himself "trois fois enterre et trois fois par is grace Dieu resuscite," and who is said to have been delivered by a Cæsarean section performed on the exhumed body of his mather.

The most recent observations point to the likelihood of obtaining a living child after a longer interval of time than twenty to twenty-five minutes after the death of the mother being extremely small. In two recent cases racorded by trustworthy authorities, living children were extracted nineteen and seventeen minutes after the sudden death of the mothers. The suggestion that in order to minimize the risk to the child the operation should be performed on dying patients before a fatal issue actually results has found favor recently amongst various obstetric writers. This suggestion is one, however, of considerable antiquity, and was put forward by some of the older Italian writers, who discussed the advisability of the operation in the moribund state before death actually occurred. A number of modern cases of this kind have been recorded with a good result of the child.

The difficulties in coming to a decision in such a condition will naturally be even greater than in the case of a patient who is certainly dead, and this procedure is consequently hardly ever likely to be practised except in a hospital. On the other hand, the performance of a post-mortem Cæsarean section may fall to the lot of any practitioner, and it is essential that he should have clearly in his mind the conditions which would render such an undertaking justifiable. These may be postalated shortly as follows: that the child should be viable and alive, that not more than twenty minutes should have elapsed since the death of the mother, and that the possibility of a rapid

delivery by the natural passages should be out of the question.

An interesting case in this connection recently has been the subject of a coroner's inquest in the town of St. Laurent in Canada. A woman suffering from an abscess in the brain died during labor, and at the order of the priest in attendance a midwife performed post-mortem Cæsarean section, it is said with a razor, and extracted a living child who survives. The matter naturally occasioned a good deal of comment in a small town, and in view of the rumor which prevailed that the woman was not dead at the time the operation was performed the midwife was held by many to have committed murder. A post-mortem examination, however, cleared up the cause of death and all the parties concerned were exonerted. The performance of such an operation by anyone but a properly qualified medisal man, especially in a case in which the patient was not dead at the time of its performance, might well expose the persons concerned to a charge being preferred against them of manslaughter, if not of murder —The London Medical Lancet.

Indications for Euquinine.

Previous eyperiments have shown that a large percentage of ths dose ingested of euquinine—the quinine carbonic acid ester quinine, which contains as much as 78.2 per cent. quinine—is rendered soluble by the gastric juice, and also by the bile, which forms soluble taurocholates and glycocholates. It is rapidly and completely absorbed, just like the quinine dihydrochloride, and hence is equally as active. This is also proved by the fact that very large doses will give rise to toxic symptoms in man as well as animals. Euquinine possesses the advantage of being practically tasteless, but care must be taken that it is not prescribed with acid substances.

From a large number of cases collected from the literature by C. Zucchi, it is evident that euquinine is a tasteless drug which is readily taken by children in milk, broth, or cocoa. It causes no gastric disturbances, except in a very few instances where an idiosyncrasy is present. The disagreeable symptoms of quinine intoxication do not occur. Euquinine is indicated as a prophylactic and curative drug for malaria, even in cases where quinine itself is without effect. It is also a good febrifuge in typhoid, pyemia, influenza, articular and muscular rheumatism, puerperal fever, bronchitis, and tuberculosis. As antispasmodic. it is serviceable in pertusis. It has a decidedly beneficial action in many neuralgias and is an excellent tonic in anemia, chlorosis, and other run-down conditions.—Gaz. Med. Lomb.

Treatment of Basedow's Disease with Antithyroidin.

The patient observed by Galli-Valerio and Rochaz first noticed a slight swelling of the isthmus of the thyroid gland, but typical Basedow symptoms appeared after an angina. A subsequent diphtheria considerably aggravated the condition, and palpitation of the heart, dyspnea, diarrhea, and extreme prostration were marked symptoms. The milk of thyroidectomized goats could not be taken, and rodagen, though it slightly improved the condition, caused such gastrointestinal disturbance that its use was discontinued. In the meantime the circumference of the neck had increased to 36 Cm.

Antithyroidin was then tried, in doses of ½ to 2½ Cc., three times a day before meals, with light wine. After 50 Cc., given during eighteen days, the nodules softened and there was marked improvement in the subjective symptoms. This continued after a second and a third similar course. Sleep returned, weight increased, the appetite was good, and the tremor and profuse perspirations disappeared. The pulse remained the same, but both exophthalmos and thyroid tumor were less noticeable. An attack of influenza was followed by a return of the symptoms, again relieved by the antithyroidin. No after-effects were noticed, except that some hair was lost after the second course of treatment, and the finger nails became brittle. The liquid preparation seems to be superior to the tablets. It will probably be necessary to take the remedy from time to time, until a permanent cure has been established.—Therap. Montashefte.

Brooklyn Physicians to Honor Dr. Cook.

A public reception in honor of Dr. Cook is being planned by the medical profession of Brooklyn. A meeting was held a few days ago to make arrangements to welcome Dr. Cook back to Brooklyn, and among those present were representatives from the following medical societies of Brooklyn: Medical Society of the County of Kings, the Homœopathic Society of the County of Kings, the Eclectic Society, the Brooklyn Gynæcological Society, the Brooklyn Surgical Society, the Brooklyn Pathological Society, the Associated Physicians of Long Island, and the Brooklyn Medical Society. A committee of arrangements was appointed consisting of Dr. Elias H. Bartley, Dr. Walter B. Chase, and Dr. Alfred Bell, who will communicate with Dr. Cook regarding the date of the reception.—N. Y. Medical Journal.

Clinical Notes

GASTRIC ATONY

A considerable proportion of all gastric disorders take their inception in insufficiency of muscular action. Their correction calls for measures restoring tonicity of the stomach muscles; for this purpose

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Medical Society of the State of North Carolina meets in Wrightsville, June 21, 1910.

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Adenoids and Nocturnal Enuresis.—Williams (Brit. Jour. Child. Dis.) states that adenoids and nocturnal incontinence do not stand in any causal relationship to one another, and that when they happen to be associated they are due to a common cause, namely, an insufficiency of the internal secretion of the thyroid gland. The majority of the writer's cases of enuresis which were successfully treated by thyroid extract showed a subnormal temperature at the outset, and the temperature gradually rose to normal as the incontinence subsided. This depression of temperature, especially of nocturnal temperature, is a marked and characteristic feature of complete myxedema, and it is therefore not surprising that it should appear to some extent in minor degrees af thyroid insufficiency. The majority of the children, when they first presented themselves, were undersized, and nearly all of them weighed considerably less than they should have done. Under thyroid treatment the gain in weight was astonishing. It may be laid down as a general rule that when a child is being treated by thyroid extract its weight should be ascertained and recorded at regular intervals. As long as there is a gain the remedy is doing good, but as soon as there is a definite fall the borderline of safety has been crossed, and the drug should immediately be suspended. The rule is subject to this reservation, that in children of a decidedly cretinoid type, during the brief initial period when the organism is ridding itself of myxedematous tissue the weight may remain stationary, and may even decline. The high-arched palate is very generally regarded as the result of deficient nasal respiration caused by adenoids. He says that it is one of the stigmata of thyroid insufficiency; that it is produced by the yieldiug of the palatine bones owing to their relative poverty in calcium salts, which, in turn, is due to an inadequacy of thyroid secretion. The same relative absence of calcium salts from the tissues, due to the thyroid insufficiency from which they were undoubtedly suffering, probably explains another feature which was very noticeable in the incontinent children, dental caries. Leopold-Levi and H. de Rothschild call attention to a sign of thyroid insufficiency to which they attach the name of "the eyebrow sign," a rarefaction, sometimes complete absence, of the hair of the outer third of the eyebrow. The diagnostic value of the sign may be stated as follows: Deficiency of the eyebrows, even when the deficiency is confined to the outer third, affords a very strong presumption in favor of thyroid inadequacy, and should always lead to a careful search for confirmatory evidence, such as urinary precipitancy, subnormal temperature, a Gothic palate, carious teeth, urticaria, mental and physical lethargy. On the other hand, perfectly developed eyebrows are by no means incompatible with a high degree of thyroid inadequacy, as shown by persistent nocturnal enuresis and abundant adenoids. Regarding signs of intolerance of thyroid extract, the writer affirms that one of the most significant symptoms of thyroid excess is the more or less sudden occurrence of a catarrh of considerable severity, usually confined to the nose. The writer regards its appearance as a warning to suspend the treatment, So long as subnormal temperature persists, the drug may be continued; as soon, however, as the temperature reaches normal, caution is necessary; and at the first indication of a rise beyond normal, the drug must be suspended.

Treatment of Inoperable Uterine Cancer.—Freund (Deutsche Med. Wochensch) says that even in cases of uterine cancer in which a radical cure is no longer possible, surgical treatment affords a hope of relief. If the process is not too far advanced one should not content himself with curretage, but should resort to complete hysterectomy with removal of as much affected pelvic and vaginal tissues as possible. During the past two and one-half years he has preferred the abdominal to the vaginal route in these operations. In the presence of perforations of the bladder or rectum or carcinomatous peritonitis, however, they are no longer to be considered. Their real aim is not a cure, but rather a prolongation of life, by retarding the growth of the tumor and arresting hemorrhage and suppuration. In the treatment of such cases the following points are of importance: 1. A long period of preparatory treatment with the sharp curette, the cautery and desiccating and disinfecting remedies, avoiding the use of tampons. 2. Occasionally the resection of the canceraus cervix and the desiccation and disinfection of the remaining cavity. 3. In operations the diseased structures should be removed as quickly as possible with adequate protection of the peritoneum, particular attention being given to preventing injury of the bladder If this organ is affected it is better not to interfere with the growth. The uterus should be carefully grasped and not too firmly drawn upon, so as to avoid tearing off the cancerous neck. If this happens there is an end to all further operation. If there are carcinomatous masses on the bladder it is best to leave them alone rather than to run the risk of injuring this organ The perimetrium should be cleared up as thoroughly as possible, and to arrest bleed

ng, immediate ligature is preferable to clamps, in order to avoid contusions of infiltrated tissue. The vagina should be divided as far as possible below the cancer and the uterus then removed after the entire pelvis and the intestines have been protected with sterile compresses. 4. To obtain primary union it is important to shut off the unclean portion of the operative field. This can only be accomplished if before beginning the operation care is taken to ascertain whether sufficient cancer free peritoneum is present in front of and behind the uterus, as otherwise hysterectomy should be avoided and replaced by ligation of the arteries. Drainage of the abdominal cavity is not indicated, as the vagina serves sufficiently for that purpose. In seven cases in which this so-called abdominal palliative operation was performed all the patients recovered, with cessation of the exhausting hemorrhages and discharges. Such an operation can be carried out, on the average, within forty minutes, and is much better borne than would at first sight be expected, and in a short time brings about a considerable improvement of the general condition unattainable other methods. Substitution of lumbar anesthesia for either or chloroform facilities both operation and convalescence.

Laparotomy in the Treatment of Gangrenous Hernia.—Hesse (Munch. Med. Wochenschr.) has performed laparotomy in cases of incarcerated hernia with the view of reducing the risk of infection of the peritoneum. This operator makes an incision 10 cm. long about 3 cm. above and parallel with Poupart's ligament, and opens the abdomen. The strangulated loop of intestine is then sought for, the surrounding parts being protected by gauze tampons. The mesentery of the afferent and efferent segments is loosened, the intestine resected and lateral anastomosis performed. The resected gut is returned to the abdomen and the free ends of the excised portion of intestine are closed with strong silk ligatures, to which long strips of iodoform gauze are tied. The gangrenous gut in the hernial sac is then exposed in the customary manner and disinfected as thoroughly as possible. It is then drawn down through the hernial opening, carrying along the gauze strips which have been tied to the free ends above and which protrude from the neck of the sac. This prevents infectious material from being carried into the abdominal cavity from the hernial sac. The gauze tampons are then removed from the abdomen, except the one surrounding the site of anastomosis. This, as well as another gauze drain, which is introduced from above into the hernial opening as far as the ends of the iodoform gauze strips, is passed out through the laparotomy wound, which is completely closed except at this place. The herniotomy wound is left open.

Chilliness as a Cause of Illness.—Siegel (Deut. Med. Wochenschr.,) shows by experiments on animals that the presence of bacteria plus the action of cold is not always followed by illness. The action of cold, however, without the cooperation of bacteria, may under certain conditions induce an acute parenchymatous nephritis. Chilling of the feet reflexly causes active constriction of the renal vessels; and the resulting anemia may persist indefinitely, entailing disturbances in the circulation and in the nutrition of the cells, and degeneration of the functional elements, with inflammation as the outcome of the whole process. The decaying cells or the abnormal metabolic products produced by degenerating cells may likewise induce an inflammatory process. The dogs experimented upon invariably developed bilateral parenchymatous nephritis, even when only one foot had been chilled in ice water (the hind legs up to the knee were immersed in water at 39 degrees F.) There was also mild nephritis in twelve dogs who had only been about on ground covered with melting snow. It would thus seem that a nephritis may be developed through cold without the presence of bacteria.

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A "lazy" or inactive liver is more often responsible for abdominal discomfort and the varied symptoms of indigestion, and intestinal Auto-Toxemia, than is generally supposed.

Why should this be so?

The pathologic sequence seems to be about as follows: first, Hepatic Insufficiency, and a consequent sluggish bile flow, deprives the intestines of its natural stimulus to peristalsis; both bile and bowel drainage are thus interfered with and Constipation results.

Second, when nature's antiseptic, antitoxic and laxative secretion (the bile) is insufficient in quantity and thick and tenacious in consistency, stasis and putrefaction of the intestinal contents ensue.

Third, the toxic products of such putrefaction are absorbed and Auto-Toxemia results.

In such cases, Indican, in varying proportion, is usually found in the urine.

This pathologic chain is more or less familiar to every physician.

As to the remedy, calomel, podophyllin and quiek "liver-stirrers" are first thought of. In many cases they help, temporarily, but are they the true *physiologic* cholagogue? Does not their action depend upon their irritant properties? Does not hepatic inactivity usually re-ensue after active liver stimulation and catharsis?

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Infantile Paralysis of the Muscles of the Foot; its Treatment by Partial Arthrodesis.—Ducroquet and Launay (Presse Med.,) state one of the principal difficulties met with by the surgeon after tendon grafting to supply the place of the paralyzed muscles, is the inability to tell just how much force will be exerted by the accessory muscle grafted on, and the constant failure of the sole of the foot to touch the ground evenly, the foot being generally tilted to one side giving varus of valgus. To obviate this bad result, which prevents the child from walking in the normal manner, the authors propose an operation which they call arthrodesis, in which the calcaneo-astragaloid articulation and the medio-tarsal articulations are opened, the articular cartilages removed, and ankylosis of the joints caused, to prevent rotatory movements of the articulations, and to permit only the movements of flexion and extension. The sole of the foot is then planted firmly on the ground, and only a slightly stiff motion at the ankle is left. The operation for this purpose is carefully and described and examples of the operation are given, showing what excellent results have been obtained in actual cases.

Idiopathic Enlargement of the Esophagus.

Dr, Armin Huber of Zurich has published a very detailed account of two cases of idiopathic enlargement of the esophagus, an affection which is rarely diagnosed during the patient's life. Dr. F. Krauss wrote an elaborate monograph on this condition some years ago, and Dr. Neumann in 1000 reported 70 cases, mort of which, however, were discovered by the pathologist only. The improvement of skiagraphy during recent years has made this condition easier to diagnose. As regards etiology Dr, Krauss attributes the origin of the disease to a primary nervous lesion—namely, partial paresis of the vagus nerve and consequent atony of the longitudinal muscles of the esophagus combined often with local contraction of the transverse muscles. In several cases some infectious diseas such as diphtheria was responsible for the malady. In Dr. Huber's two cases the patients were aged 52 and 20 years respectively; the important points were (1) the establishment of an exact diagnosis during life by means of skiagraphy: and (2) the relief afforded to the patients by artificial feeding through an esophageal tube.—The London Medical Lancet.

Temporosphenoidal Abscess Rupturing Into the Lateral Ventricle.

A. A. Gray recently reported to the Glasgow Medico-Chirurgical Society a case of this nature. On the opening of the abscess, very fetid pus mixed with cerebrospinal fluid escaped. After operation great improvement took place. Consciousness and intelligence were quite restored, and the various paralyses, previously present, disappeared to a great extent. A few days afterward, however, meningitis set in, and the patient died fourteen days after operation. Post-mortem examination revealed a long and tortuons sinus passing almost horizontally backward from the abscess and opening into the lateral ventricle at the point where the posterior joins the middle cornu. The infection thus had reached the right lateral ventricle, and had then extended to the third ventricle, from there to

the left lateral ventricle and downward to the fourth ventricle, through the aqueduct of Sylvanus. From the fourth ventricle pus had escaped into the arachnoid space, and caused a basal meningitis, and involved all the cranial nerves. The chief interest of the case lay in the comparatively long time the patient lived after the rupture, of the abscess into the lateral ventricle. This was probably due to the operation being performed very soon after the rupture, and from the rupture being more a gradual leakage into the ventricle rather than a sudden burst.—British Medical Journal.

Cystalgia in Movable Kidney.

Ferdinando Gangitano gives the symptomatology of movable kiney as including all sorts of neuralgic pains in the lumbar, crural, and intercostal regions, gastralgia, hysterical attacks, nervous phenomena, abolition of reflexes, diminution of the visual field, and disturbances of the genital organs. The author records a case in which the disturbances of the bladder were very severe and of a neuralgic nature. The pyelo-uretero-vesical reflex was excited in this case. The nervous filaments become congested or affected by toxic elements and react excessively, The same plexus which supplies the bladder enervates the lower portion of the uterer. The pain resulting causes in the author's case a course of treatment for cystisis by means of lavage of the bladder to be undertaken. The reflex genital pains caused a curretting and other uterine treatment to be undertaken, all of which produced no benefit because the cause of all the trouble was a movable kidney. The pain was due to contractions of the detrusor and sphincter of the bladder, and with them was combined disturbance of micturition.—La Riforma Medica.

Hemorrhoids in the Child.

Denis G. Zesas states that, although hemorrhoids are rare in children, they do occur, forming bluish tumors about the anus. The author believes that one of the factors is heredity, there being an abnormal congenital thinness of the mucous membrane of the anorectal region. The vessels of this region participate in this thinness and they are unable to support the column of blood pressing against the walls of the hemorrhoidal veins. Constipation is an important factor in many cases, while in others a chronic diarrhea causes weakness of the walls. Tumors in the abdomen and enlarged liver are occasional causes of pressure on the veins. Infection may also be a cause, inoculation taking place from simple subsphincteric ulcers and excoriations of the anal region. Hemorrhoids present two forms, angioma and simple varix. Diagnosis presents no difficulty, Treatment is the same as in adults, the Miculicz operation giving the best results.—Archives Generales de Chirurgie.

A Dressing for Burns.

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Hyperemia in the Treatment of Chilblains.

Dr: B. Ritter states that not one case of chilblains failed to improve under the application of which hyperæmia is produced. The same thing can be brought about by the application of hot air to the part, in the absence of the constricting bandage. The application should extend from six to twelve hours, with a pause of at least two houre daily.—Pritish Medical Journal.

Feeding by Rectum.

It should be remembered that injection of nutrient material into the lowerbowel excites gastric secretion, and may thus account for the pain in the stomach frequently complained of in gastric cases under rectal feeding. This is important, because rectal feeding is often advocated in gastric ulcer in order to give complete rest to the stomach, not only from food but from the secretion of gastric juice.—British Medical Journal.

Danger Due to Substitution.

Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

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This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medica literature show that every physician should see that his patent gets exactly what he prescribed. No "just as good" allowed.

Electricity in the Diagnosis and Treatment of Infantile Paralysis.

H. Marques divides the treatment of infantile paralysis and its symptoms into three stages. The first is the acute stage, when measures to lessen irritation and infection are in order. Next comes a stage of regression and paralysis. Beginning from the early days of the disease, paralysis is marked, and the muscles degenerate and atrophy. The electrical applications are now of great value in two ways: in diagnosis of the possibility of recovery in the paralyzed muscles, and for treatment of these muscles to keep up their tone until the greatest possible amount of repair has occurred in the spinal cord. The Faradic reaction is entirely absent from early in the disease in the paralyzed muscles and the reaction of degeneration is shown by applications of galvanism to these muscles. Upon the character of the degeneration reaction depends the prognosis for recovery of the various muscles. The use of galvanism is invaluable; in fact, is the only means of treatment of any value in exercising the muscles and preventing atrophy. It is given at first in continuous application, followed by an interrupted current, the pole being used over the muscles that give the best contraction. The sittings should be short and only the amount of

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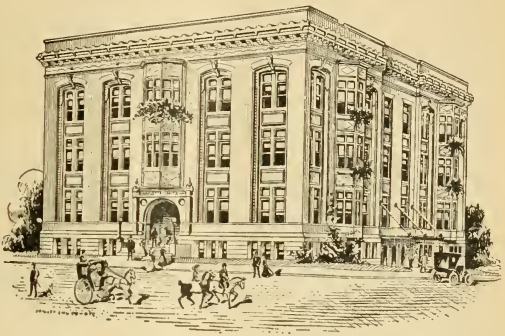

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current strength that is needed to cause contraction should be used. The final stage of the disease is that of deformity. All possible repair has already taken place, and the time has come for keeping the joints in position by braces, to prevent changes in the joint structures, and for transplanting by surgical measures healthy muscles onto paralyzed tendons. The use of electricity to facilitate the action of the transplanted muscles, in cases of this nature, is of great value.—Annales de Medecine et de Chirurgie Infantiles.

The Exudative Diathesis.

Claudio Ventura denotes by the name of exudative diathesis a condition obtaining in infants under two years of age, consisting of a transitory and repeated congestion, and turgescence of the skin and mucous membranes of the body. The special characterisiic of this congestion is its evanescence. It occurs in children of debilitated parents, those that are of advanced age, and those that have debilitating diseases. There are congestions of the nasal and pharyngeal mucous mombranes causing stopping of the nose and enlargement of the tonsils, that disappear rapidly; asth-

matic dyspnea, and eruptions on the skin that simulate true ezema, urticaria, milk crusts, etc. The vesical, palpebral, and intestinal mocosa may be affected, and the liver is enlarged. After a number of such attacks a permanent hypertrophy of tissues may result. Geographic tongue without loss of appetite or had bad general health are manifestations of this state. The cause of these attacks of congestion is a too large amount of the fatty constituents in the diet, and the treatment consists in reducing the diet to the smallest possible amount consistent with the preservation of life, leaving oui the materials that will produce fats. No medicinal treatment, Ventura says, is of curative value, and it should be resorted to only a palliative to the local manifestations.—Rivista di Clinica Pediatrica.

Electric Narcosis and Resuscitation.

Some time since we had occasion to refer to the condition known as "electric narcosis," first discovered by Professor Leduc, of Nantes. It is brought about by passing through the nerve centers a current, preferably from a battery, which by means of a special commutator was interrupted 100 times a second, the current actually flowing for one-tenth of the period between each interruption, This is now known as the Leduc current; and if there are no signs of its displacing ether and chloroform for producing anesthesia in human beings, it certainly has done so to a large extent in the conduct of laboratory experiments upon animals. We have received copies of a series of papers by Dr. Louise G. Robinovitch, of New York, in which she makes several important communications regarding the uses and properties of such currents. Speaking of electric anesthesia in laboratory work, she points out the following advantages among others: 1. The blood pressure, respiration, and temperature remain about normal, even after eight hours or longer anesthesia. 2. It can be induced not only centrally but locally. 3. No animals have been lost from this anesthesia. 4. A voltage of from 5 to 10 is all that is required to produce electric anesthesia, and this potential is quite free from danger to life. Finally, Dr. Robinovitch has been able to perform important operations, such as exposure of the brain, carotid artery, vagus nerve, and abdominal organs, under its influence. Carrying her investigations further, she has made the somewhat paradoxical discovery that if properly applied this current can resuscitate electrocuted animals. The animal having had the hair shaved off at three places—head, upper part of dorsal region, and lower part of spine—is placed in the cradle with an electrode fastened to each shaved area. The electrode placed at the end over the lower part of the spine is the anode, the other two are cathodes, that at the root of the neck at first being disconnected. When everything has been prepared, a lethal current is passed through the body until apparent death sets in. The cranial electrode is then disconnected, that at the root of the spine being joined up in its place, and the operator by means of a suitable break carries on rhythmical excitations with a sufficient potential to cause maximum respiratory expansions. These are practiced for one second with an interval of from two to three seconds. From 10 to 30 of these are generally necessary to restore spontaneous respiration, and a successful result may occur after a much longer period. Carrying her work still further, Dr. Robinovitch has succeeded in resuscitating animals after cardiac or respiratory syncope has been induced by chloroform or ether, the method of applying the current as well as the current itself being essentially the same as that which we have described. The possible practical importance of these experiments in surgery is obvious, for there would seem to be no valid reason why, in cases where the administration of a general anesthetic was attended with some anxiety, arrangements should not be made to apply rhythmical electrical excitations.--The London Medical Lancet.

The Evil Effects of Sunshine.

If it be true that "devils love darkness," then, according to C. E. Woodruff (Ophthalmology, April, 1908), they are in advance of the medical men who advise their patients to "get into God's sunshine as much as possible." Woodruff would have us believe that light has a most pernicious action, not only upon the lower forms of protoplasm, but also upon mankiud. The ultra-violet rays have essentially the same lethal effect as Roentgen rays and those emitted by radium. All animals are protected against the sun; they hide in the day time, or are covered by hair, feathers, or pigment. Even plant cells must work in the dark under the bark, or protected by green pigment. Man also needs protection, and by the ordinary laws of selection a race becomes pigmented in direct proportion to the intensity of the light. The author sees the process going on in America, a land where the blonde type is rapidly giving place to the brunette, and asserts that it is well known that the tuberculous rapidly perish in the tropics. Knopp has stated that in the Southeastern States of America phthisical patients only improve in the long, cold win-

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ter; they make no progress in summer. If subjected to the "sunshine treatment," the brunettes show better results than the blondes, who invariably perish if they migrate too far south. Not only is tuberculosis more prevalent among blondes, but neurasthenia also claims them as its victims. This disease is wofully prevalent in white men both in the tropics and in the snow glare of the artic regions. It is made worse in the land of perpetual sunshine, but improved in dark, cold climates. Woodruff appears to be in ignorance of the fact that there is at least one resort of consumptives which seems almost able to recall the dead to life, the South African Karoo—a land of perpetual sunshine! The author states that most migrains are due to eye-strain, the result of astigmatism. The astigmatism is due to lid pressure, and the lid pressure is accentuated by sunshine. In America a trivial error of refraction can, it seems, lead to "terrible sequelæ" and to "much truancy and crime." We are unable to accept these views. In our experience, true migraine is rarely caused by errors of refraction, nor can we believe that astigmatism, which may be due to a flattening of either the vertical or the horizontal medians of the eye, is due to lid pressure. The idea that a pair of spectacles can make a criminal a moral man need not be discussed outside the yellow press. That exposure to direct sunshine can have, under certain circumstances, a pernicious effect must be admitted, but the extreme views expressed in the paper are little short of ridiculous.—British Medical Journal.

On Percussion as an Aid to the Diagnosis of Fractures of the Skull.—Hogarth (Edinburgh Medical Journal) thinks that it is the best to carry out percussion with the fingers without any intermediary pleximeter. The head of the patient should be supported with the examiner's left hand placed beneath the occiput, while the right hand is left free to percuss. The two sides should be compared, and the mouth should be either opened or closed during this comparison. The writer says that in case of fracture one of two changes in the note elicited may be found to be present—either the note is lowered in pitch over the fracture zone, or in addition to the lowering of the pitch a definite crack-pot quality is introduced.

For either change to be brought about it is necessary that a fracture (fissure) must extend a certain distance over the surface of the skull. A very short fissure may not cause any appreciable change in the note, and the same may happen possibly in a very close fissure. The cracked-pot sound is most marked in comminution, but it is obvious in T-, L-, or V-shape fractures. In some cases there is no alteration of tone at all, but there is likely to be persistent tenderness. The cases reported are not particularly conclusive.

Rheumatism.

"The speculative and somewhat nebulous character of our knowledge of rheumatism is indicated by the fact that salicylic acid, the one agent which has given the best and most uniform results, and the one most generally employed, is used empirically.

The introduction of salicylic acid marked a great advance in the treatment of rheumatism, and while its powers have been most strikingly exemplified in its control over articular rheumatism, still its achievements in connection with other forms of the disease are scarcely less brilliant.

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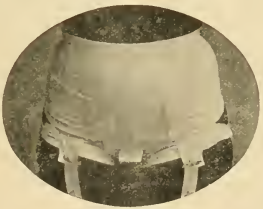

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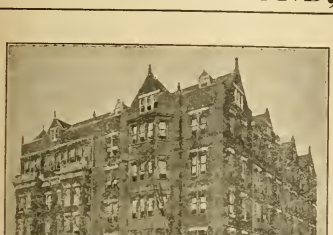

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Treatment of Severe Cases of Chronic Colitis.

P. L. Mummary says that cases of chronic colitis naturally divide themselves into two classes: First, those which, if carefully treated by a suitable dietary, proper regulation of the bowels, and perhaps one or more visits to some suitable spa where proper lavage of the bowels can be carried out, get well and stay so; and, second, those in which, in spite of prolonged careful medical and spa treatment, but little if any improvement follows, and in which relapses quickly occur. The latter forms one of the worst classes of chronic invalids and chase after all forms of quackery. The first task of the physician should be to find out the real cause of the symptoms. The term "chronic colitis" should be reserved for those cases in which there is a chronic inflammatory condition of the colon mucosa. They should be made out easily with the sigmoidoscope, as the sigmoid flexure is practically always involved. Such cases do well on lavage and the Plombieres douche. In some of the cases with this class of symptoms there is, instead of lesion of the mucosa, some chronic obstructive lesion, such as adhesions from a previous peritonitis or perimetritis. Cancer of the colon may cause symptoms of chronic colitis. In another group of cases we find a chronically inflamed appendix. In still another group there is no inflammation of the mucosa, but the whole colon is lax and atonic and there is a marked tendency for the upper portions to prolapse into the latter, and there is generally well-marked ptosis of the stomach and the transverse colon. Here lavage would be harmful. Those cases which medical measures fail to relieve may call for appendicostomy. The most difficult cases to treat are those in which there is a general atony of the bowel combined with ptosis of the colon. Stitching up the colon is quite useless, as it is unreasonable to expect stitches to hold up the stomach and transverse colon permanently when the natural supports have not been able to do so. In such instances very satisfactory results follow appendicostomy and the fitting of a belt to support the abdomen. The object of operation in such cases is to prevent the stagnation of the fecal contents of the colon and at the same time by the introduction of peristaltic stimulants to improve and restore the muscular tone of the bowel wall.—British Medical Journal.

The Treatment of Aortic Valve Disease.

In cases of pure aortic regurgitation, our efforts should be directed to lowering this resistance, so that the amount of force required during systole to keep up the circulation is as low as possible. A mixture containing bromides and iodides may be given to these cases. Iodide of sodium has no practicable superiority over iodide of potassium; either will do, but the addition of bromide of potassium is advantageous, possibly partly because it quiets the nervous system, and we know that the blood pressure is largely influenced by the emotions. The various vasodilators, such as amyl nitrite, trinitrin, erythrol tetranitrate, are also useful, but should not be given as a matter of routine. Belladonna combined with bromide and iodide is often beneficial. Where there is sleeplessness, as is not infrequently the case, a hypodermic injection of morphine is often of the greatest service. Digitalis should not be given in this class of cases. Strophanthus causes less peripheral constriction than digitalis, and so is safer, but even this drug is better avoided if the mitral valve is competent. The heart muscle may be sustained and stimulated, if desirable, by strichnine, but strychnine is incompatible with iodide of potassium, as it forms an insoluble iodide.

There is, however, another class of cases where aortic regurgitation has gone on for some time, producing the conditions in the ventricle already described, without any sudden rise of pressure, causing sudden death, but where, as the result of the gradual dilatation of the left ventricle, the mitral valve becomes incompetent. When this occurs the danger of sudden and dramatic death is to a certain extent lessened, but a new series of symptoms arises. Before, the difficulty which the left auricle had to face was that of pouring, during its systole, the blood it contained into a possibly partly filled ventricle, but now, added to this, it has a stream of blood under pressure forced into it during its diastole by the contraction of the ventricle; consequently the auricular dilatation increases and the pulmonary blood pressure rises, so greatly increased work is thrown upon the right ventricle and changes occur in the right side of the heart. For a time the increased pulmonary pressure may be compensated by hypertrophy of the right ventricle, but in a heart already seriously altered from aortic regurgitation this compensation is not, as a rule, long maintained; the right ventricle dilates, tricuspid regurgitation takes place, and we get engorgement of the systemic venous system, with the usual symptoms of enlarged liver, œdema of the legs, and possibly ascites; in fact, the case which was primarily aortic regurgitation now puts on the symptoms of mitral disease and terminates as mitral cases do.

This is the class of aortic cases in which

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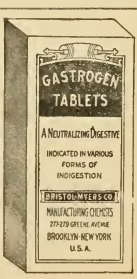

digitalis and its congeners are useful. The peripheral vasoconstrictor action of the drug is of less importance, because the regurgitation through the mitral orifice acts to a certain extent as a safety valve. Consequently when the left ventricle contracts there is not the same fear of it being unable to complete its contraction, so there is less risk of a sudden strain bringing it to a standstill, while the beneficial effect of the drug on the cardiac muscle is more marked, because the right ventricle is now becoming embarrassed and needs its assistance. Speaking generally, we may say, when in a case of aortic regurgitation the mitral valve has given and the right ventricle is becoming embarrassed, digitalis or strophanthus is beneficial.—The Hospital, London.

Relapsing Scarlatiniform Desquamative Erythema.

G. Petges describes a form of erythema that is easily mistaken for scarlatina. Its distinguishing points are the absence of marked fever, and severe symptoms, the marked pruritus that precedes it, the very large plaques in which desquamation occurs with an erythematous condition continuing, and the recurrence of the attacks, one patient described by the author having had twenty attacks. It begins with pruritus, malaise, feeling of fatigue, chilly feelings, headache, and inability to sleep on account of the itching. It appears over the entire body. Desquamation begins in a few days and lasts for some weeks. There is no history of contagion. The plaques of desquamated skin are large and very tenacious. The cause of the disease is unknown, but the symptoms are in favor of an infection. It is probably this disease that is mistaken for second attacks of scarlatina.—Gazette Hebdomadaire des Sciences Medicales, de Bordeaux.

Osteomyelitis in the New-Born.

H. L. Devraigne says that osteomyelitis when it occurs in young infants begins acutely with high temperature, extreme pain on motion of the affected limb, moaning, and refusal of food. An enlargement of one or other bone is found accidentally. The source of infection may be intrauterine. After birth there are several modes of entry for microorganisms, the principal of which are the staphylococcus, streptococcus, and pneumo-bacillus. The last form of infection is short, but exceedingly severe. A bronchopneumonia from infective emboli may be a complication. The prognosis is affected by the age of the infant and the number of foci that are affected. When recovery does occur it is quicker and more perfect than in the adolescent. The joints generally recover perfectly, and there are no sequestra, since there is little tendency to necrosis of the bone. Treatment should consist of supportive measures and early drainage of the affected foci. The author recounts a case observed by him in an infant of eleven days, in whom there were eight distinct foci of infection in the long bones. The infant recovered with little deformity.—Bulletin de la Societe d'Obstetrique de Paris.

Early Diagnosis of Measles.

E. Apert describes two signs that he considers pathognomonic of measles, and that appear so early in the disease, or so late in the incubation period, that isolation begun at this time will prevent its spread to others in the family. It is not early enough to make the diagnosis when the catarrhal symptoms have appeared. The disease is then infectious and all precautions fail to prevent its spread. The signs that are of value are Koplik's spots and conjunctivitis of the pterygeal area, that is of the conjunctiva between the lids. This appears when Koplik's spots are seen, that is three or four days before the skin eruption, and both signs have disappeared when Koplik's spots are seen—that is, three or four on the inner surface of the cheeks, rarely on the inner side of the lips, never on the gums or palate. At first they are like tiny, grayish granulations on the rosy mucous membrane, later becoming bluish.—Le Bullstin Medical.

Protargol in the Treatment of Ophthalmia Neonatorum.

Motais (Bull. de l'Acad. de Med,, May 4, 1909), discussing the treatment of ophthalmia neonatorum, pays tribute to the service rendered by nitrate of silver, which has been so long used; he, however, considers it dangerous when ulceration of the cornea is present. He considers that great credit is due to Darier for his researches in the organic compounds of silver—namely, argyrol, collargol and protargol, the latter of which he considers by far the most valuable. The method he adopts is as follows: The lids are washed frequently with a lukewarm solution of weak permanganate of potash 25 centigrams to 1,000. If the secretion causes the lids to adhere they should be smeared with iodoform ointment. Every six hours he uses two drops of a 20 per cent solution of protargol, no matter whether a corneal ulcer be present or not; this never does the cornea any damage. In severe cases with abundant secretion, and especially if the cornea is affected, he uses the protargol drops every three hours, and he

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hould recurrence take place, which he has
ever seen if the treatment is fully carried
ut, he reverts to that first recommended.
a corneal ulcer is present it quickly heals.
tropin is also recommended in order to
oid the occurrence of posterior synechiæ.
e claims for this treatment that it is sim-
e, without danger, and it gives the best
sults. He describes ten typical cases.—
ritish Medical Journal.

Treatment of Pneumonia of Children.

The most prominent symptoms of pneumonia demanding treatment are the fever, consolidation, dyspnea, and pains. According to A. Baginsky, it is a mistake to fight the fever too energetically, as under its influence antitoxins are formed which bind the poison. A temperature of 40° to 41° C. for a few days does not call for the use of antipyretics, and can be tolerated without harm. An ice-bag over the affected lung or on the head will usually be very comfortable. Where the temperature continues high, cold packs or baths are in place, once or twice a day.

The diet should consist of milk, eggs, and

broth, and some wine should always be allowed, as stimulant.

Occasionally a digitalis preparation, camphor, or a saline infusion will be necessary. Very anemic children will require iron, while in the progressive type of the disease, potassium iodide, three to four times daily a tablespoonful of a 3 per cent. solution, may be prescribed.

Common complications are pleurisy, empyema, otitis media, and albuminuria. They all require active interference. There is less danger of paralysis of the right heart than with adults, but a venesection may sometimes be demanded.

The treatment of pneumonia with specific sera has in general been unsatisfactory, as equally as good, if not better, results can be obtained with the usual management.

The prognosis of broncho-pneumonia is not so good as of lobar pneumonia, as the former is generally secondary to some other disease or constitutional trouble. Since the fever is usually of longer duration, antipyretics will be required, while ice is usually not well tolerated. It will often be necessary to prescribe expectorants, cardiac stimulants, mustard packs, etc.

The treatment of the convalescent stage of pneumonia is no less important than that of the active stage. A change of climate will often be most beneficial.—Therap. d. Gegenw.

Ulcerative Stomatitis.

M. H. Grenet says that stomatitis is not truly membranous, since the supposed membrane is composed only of debris of the mucous membrane. It occurs especially when the teeth are erupting, under defective hygienic conditions. It is emphatically contagious, directly and indirectly. It may develop spontaneously in an infant who has not been exposed to infection. The cause is generally spirilli and fusiform bacilli associated with other microorganisms. The characteristic is necrosis of the mucous membrane. The breath is exceedingly fetid. Ulcerations may occur at any point of the lining of the mouth. The submaxillary glands are engorged, there is salivation, and buccal pain. It may be very chronic in course. Complications are rare. The use of chlorate of potash is almost a specific for the disease.—Gazette des Hopitaux.

Congenital Muscular Atony.

Levi-Sirurgue describes congenital muscular atony as occurring in new-born children, and being distinctly regressive, ending generally in recovery, unless the infant is carried off by some intercurrent respiratory affection. The cause of this affection appears to be a congenital lack of development of the muscles, or of the medullocerebellar nervous strands. The muscles of the infant are soft and flaccid; there is so marked a paresis that the child is unable to stand alone or walk. There is no affection sensibility. The spine is abnormally movable. The tendon reflexes are abolished, and electrical contractility is almost if not quite abolished. Treatment consists faradism of the muscles, baths, and massage, combined with arsenic and strychnine. —Gazette des Hopitaux.

Treatment of Sclerema Neonatorum.

Dionigi Tibone describes sclerema as a condition of the new-born, especially of premature infants, in which there is a hypothermia combined with slow and feeble pulse, and a solidification of the subcutaneous fat cells, with hardening of the skin. The infant becomes excitable by no stimulations, looks like a corpse, and is incapable of nursing. The indications for treatment are stimulation, artificial feeding, and keeping up the temperature of the infant. This last indication is carried out in various ways—by applications of external heat, by hot baths, by keeping the child in an incubator, and by enveloping its limbs in impermeable materials which keep the heat in, lessen the surface for radiation, cause fluidification of the subcutaneous fat cells, and make the slowed circulation more rapid. The author gives histories of 19 cases in which these measures were used with some success. The use of impermeable wrappers for the limbs is very simple and effective, as well as cheap, and does not interfere with the application of other means of calorification.—Rivista di Clinica Pediatrica.

Iron as a Substitute for Bismuth in X-Ray Diagnosis.

During the past few years the practice of giving bismuth subnitrate to patients in doses of a size previously unheard of has become quite common. This diagnosis, and the other, an outcome of the first, the treatment of tuberculous sinuses by mixtures of bismuth and vaseline, as recommended by Beck, of Chicago. Both of these uses of bismuth have been distinct advances in medical science and have led not only to more acute diagnoses, but also to some remarkable cures. At the same time, however, this use of the massive doses of bismuth subnitrate has recalled to us a fact previously well known, but apparently forgotten by the new generation of medical practitioners, namely, that this drug is fa:

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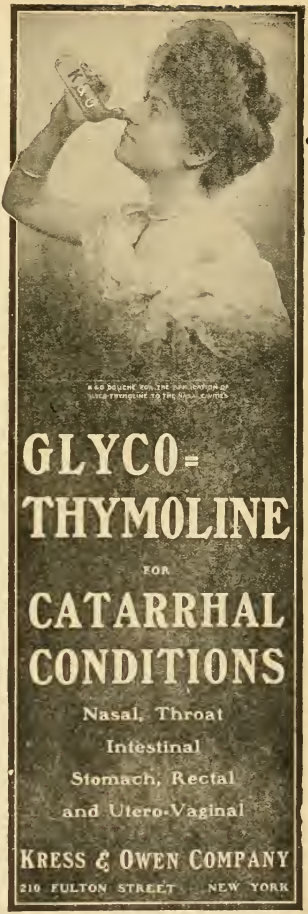

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from innocuous, and if used too freely is liable to cause serious or even fatal results. Its action appears to be twofold, both the bismuth and the nitrate radical causing definite symptoms of poisoning. These intoxications are serious, for even when nor fatal they are chronic in nature, and may cause decided discomfort over periods of many months. In this connection it is of interest to find in the *Muncheuer medizinische Wochenschrift* for June 8, 1909, a brief note by Karl Taege of Freiburg describing a method by which iron can be substituted for bismuth in x-ray diagnosis. The objection to a watery suspension of iron is that the metal sinks rapidly, and is not evenly distributed, while an oil emulsion is disagreeable to physician and patient alike. Taege, therefore, suggests as a substitute an emulsiion in tragacanth. He grinds iron oxide in a mortar with tragacanth powder and then shakes the mixture thoroughly with water in a flask. Enough tragacanth must be used to make the final watery solution contain about one per cent. of the substance. This gives a syrupy fluid in which the iron oxide remains in suspension for hours. If this iron preparation acts as well in obstructing the x-rays and is less toxic than bismuth subnitrate, it should prove a valuable substitute for the latter more dangerous drug.—Berliner klinische Wochenschrift.

Recent Methods of Inducing Anesthesia.

Special masks for anesthetizing have been recommended by Geppert, Roth-Draeger, and others, but the ordinary mask is still the most popular, both for ether and chloroform. W. Busse states that it is not generally known that many small operations can be performed in the first stage of ether narcosis: it is only necessary to instruct the patient to breathe deeply seven to eight times, and then to press a mask saturated with 10 Cc. of ether firmly upon the face. The anesthesia lasts from five to ten minutes, and is not usually followed by nausea or other after-effects.

Scopolamine and morphine have been employed subcutaneously, but generally a small amount of chloroform is required also. This method of anesthesia is used by preference in cystoscopy and in obstetrics, yet may diminish the intensity of the labor pains and injure the child. Morphine-scopolamine may also be used in conjunction with spinal analgesia, especially in gynecological work (3 injections, each of 5 decimilligrams scopolamine and 0.5 centigram of morphine are used, 2½, 1½, and ½ hours before the operation). The anesthesia is usually of sufficient duration to diminish the first pain of the wound, and the intestines are usually active soon after the operation. On the other hand, many patients complain much of thirst, and considerable mental confusion is often evident. For spinal analgesia, the author uses novocaine with the addition of a small amount of suprarenin. Anesthesia usually sets in in fifteen minutes and lasts from one to two hours.

The only cocaine substitutes which are at present employed are tropacocaine, novocaine, and stovaine. The first and second are only slightly toxic, while the last is supposed to stimulate the heart. The disadvantages are stated to be: of tropacocaine, the short duration of anesthesia; of stovaine, the occasional symptoms of intoxication; and of novocaine, the lowering of blood-pressure. The anesthesia is indicated in operations in which chloroform is not safe —on the lower part of the body, or in old patients when it is desirable to have them get up soon. Spinal analgesia is contraindicated in nervousness, anemia, cachexia, and tendency to headaches, as well as in marked obesity. The chief after-effects following the use of novocaine are vomiting and occasionally secondary hemorrhage, while later there may be meningismus or pareses of cerebral or spinal nerves.—Therap. d. Gegenwart.

The Final Results of Tracheotomy.

W. Wolf instituted an inquiry as to the fate of those children who had been tracheotomised for laryngeal diphtheria between 1895 and 1906 in Trendelenburg's Clinique at Leipzig. During this period 404 patients were tracheotomised, of whom 264 were discharged cured. The high mortality was due to the fuct that many of the patients were moribund on admission. Wolf was able to trace 173 of these patients: 145, or 85.5 per cent. were free from any symptoms; 18, or 10.7 per cent. were singers or athletes; 24, or 14.2 per cent., since the operation had suffered from hoarseness, shortness of breath, and colds; 7 cases, or 4.1 per cent., presented more serious sequlæ: 4 showed signs of tuberculosis, but in 3 there was a family predisposition. One had a permanent fistula, and the other two had had repeated attacks of pneumonia. No case of cicatricial stenosis was observed. This was probably due to the fact that the lower operation had been perfomed in every case. Wolf concludes that serious sequelæ after tracheotomy are not frequent, that the mortality from tracheotomy and intubation are exactly the same, and that Landouzy's statement that tracheotomy predisposes to tuberculosis is not justified. —British Journal of Children's Diseases.

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Ovarian Grafts With and Without Anastomosis of Vessels.

Mauclsire believes that in order that ovarian grafts may be successful it is best to provide a blood supply by anastomosing the ovarian vessels with some others, preferably the epigastric. He has had two positive cases in women. There is no doubt that both heterografts and autografts have been successful, both in animals and in women, although not nearly all the grafts have taken, and many have undergone atrophy. The author gives a review of the successful cases recorded. Heterografts and autografts are made for the purpose of avoiding the nervous symptoms that result from double ovarian ablation, especially obesity. Heterografts are also made to render pregnancy possible. Another indication is amenorrhea from congenital ovarian atrophy. If we are to succeed generally the author believes that we must supply nutrition to the graft by furnishing it with a circulatory supply. This appears to be much more important than a continuous nerve supply.—Archives Generales de Chirurgie.

Pathogenesis of Unilateral Pleuritic Effusion in Cardiac Disease.

Feliziani says the pathogenic factors in this condition are pericarditis, perihepatitis from hepatic congestion, and pulmonary infarctions. Pulmonary hemorrhagic infarctions are the cause in the great majority of cases. These arise from cardiac diseases, especially of the atrioventricular orifices, small coagula being detached and carried into the lungs to form pulmonary embolisms. Aortic affections and arteriosclerosis also cause embolisms. The upper level of the fluid is not above the angle of the scapula. —Il Policlinico.

Treatment of Placenta Praevia.

Dr. B. Kronig summarizes the details of twenty cases of placenta prævia at the Freiburg clinic in which the women were under the most favorable conditions in regard to the medical supervision in a clinic, asepsis, etc., from the start. In every instance during delivery hæmorrhage was arrested by version. He states that control of hæmorrhage by the metreurynter cannot be relied upon owing to the fact that hæmorrhage is from the isthmus as a rule and the metreurynter stretches the isthmus still farther. Four of the twenty patients bled to death and another succumbed to sepsis, and yet the conditions were exceptionally favorable for all. Those who survived suffered long from severe anemia. The more advanced the pregnancy the greater the tendency to hæmorrhage. The conclusions from this series of cases are that the results of treatment of placenta prævia are so disappointing by the present methods that it is incumbent on us to seek for improved methods of treatment. He has been looking over the records of 34 cases of placenta prævia received at the clinic since 1904, in which the date of the first hæmorrhage is mentioned, in every instance a warning hæmorrhage had occurred during the last few days or weeks before the child-birth. The physician summoned merely ordered the patients to bed and the hæmorrhage stopped with the bed rest. These warning hæmorrhages recurred three or more times before labor came on, and the physician would have had ample time to send the patient to the clinic if the warning of these premonitory hæmorrhages had been heeded. The obstetrician is able to save the mother with contracted pelvis by perforation during delivery in the home, but with placenta prævia both mother and child succumb in 15 to 20 per cent. of the deliveries in private houses. Even in the clinics the mortality is still from 5 to 8 per cent. at the best.—Zentralblatt fur Gynakologie.

Crypto-Diphtherias.

Abraud says that cases come into every hospital without visible membrane in the throat, which later prove to have been true diphtheria, the membrane being located in the larynx, nasopharynx, trachea, or esophagus. They are discovered late in the disease, when they have been severely poisoned, perhaps diagnosed only by the symptoms of diphtheritic paralysis of the palate, and have already spread the disease to other patients. The symptoms that indicate this state of things are extreme fatigue, loss of weight, rapid pulse, marked swelling of the glands of the neck, with or without high fever.—Annales de Medecine et de Chirurgie Infantiles.

Genital Tuberculosis in Woman.

C. Lenormant says that genital tuberculosis is rare and is almost always secondary to tuberculosis in some other part of the body, often the lungs. It may result as a primary condition from coition with a male who has genital tuberculosis, but this is exceedingly rare. In three per cent. of laparotomies for gynecological troubles there is a tuberculous lesion found. This is usually a descending affection conveyed by the blood-vessels. The vagina is only infected when there are lesions of the mucous membrane. Tuberculosis is rare where there is pavement epithelium. It is more frequent in the fundus uteri, tubes, and ovary. There

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may be ulcerations or infiltrations of the surface. On the cervix it forms cauliflower growths; in the fundus there is a chronic localized endometritis. When the tubes are involved the peritoneum is also attacked. Surgical interference is generally necessary to bring about a cure.—Progres Medical.

Mercury and Sulphur.

D. Respighi finds that sulphur acts as an antidote to mercury in the intestinal canal and when sulphur waters are being drunk it is found that the patient will tolerate a larger amount of mercury than when they are not in use, without the occurrence of mercurialism. Sulphur is not only an antidote to mercury in the intestinal canal, but also to the mercury circulating in the blood. Whenever we have symptoms of mercurial poisoning in syphilis we should make use of the sulphur waters as an antidote and eliminant.—La Riforma Medica.

Reducing a Dislocation of the Shoulder.

Dr, G. Schichhold relates the following simple method of reducing dislocation of the shoulder: The forearm is held between the physician's thighs as he stands in front of the seated patient. The arm is held firm by the adductor muscles and strong pressure can thus be brought to bear as the physician pulls back while holding the shoulder with his hands. The downward pressure thus exerted overcomes the action of the antagonist muscles and stretches the capsule and ligaments until reduction is easily done. Dr. Schichhold has applied this method in many cases during the last forty years with satisfactory results. The chief advantage of this technique is that he can regulate, himself, the force of the traction exerted to the exact amount required for reduction, as he grasps the neck of the humerus with one hand and with the other presses the head into place, both hands being free for the manipulation of the joint. The only assistance required is some one to hold the patient firm in the chair, one arm around the neck and the other in the axilla. The technic allows rapid reduction of even old dislocations without anæsthesia, assistance or apparatus.—Medizinische klinik.

Hemiplegia from Cerebral Arteritis in Heredosyphilities.

Paul Savy says that the early symptoms of syphilis in hereditary cases occur within three months of birth, and the dystrophies come from the fifth to the twentieth year. The manifestations of cerebral arteritis in the form of hemiplegia occur in the interim, the earliest recorded having been seen at five months of age. They occur from the second to the fifth year in general. They

may be associated with other nervous troubles in cases that show evidences of syphilis, or they may occur suddenly in children that have given no evidences of syphilis. They may be preceded by symptoms of malaise or convulsions for a few days. Such hemiplegias may disappear entirely under specific treatment in a few weeks or months, or there may be left a variable amount of impotence and atrophy, corresponding to an area of brain softening due to obstruction of some one artery. These conditions are entirely similar to the specific hemiplegias of adults, which are often of a passing nature, and are caused by cerebral arteritis with ischemia. Whenever we have a sudden hemiplegia in a child we may look for syphilis, even if there are no other signs of its presence.—Revue de Medecine.

Aural Vertigo.—Simon, in The British Medical Journal, says that as regards treatment, this naturally has reference to the underlying aural affection, and in giving a prognosis one has to take into consideration the possibility of the amelioration of this condition, and also the period of association of the deafness and vertigo. In non-suppurative affections of the middle ear in which the vertigo has shown itself much later than the deafness or timitus, it has seemed to the author that the treatment of the aural condition was more likely to lead to its improvement or disappearance. In treating the symptom itself the drug of most efficacy is quinine. Charcot instituted this treatment on the principle that it gradually destroyed the hearing, when, as it has been seen, the vertigo disappears. On the other hand, Urban Pritchard reports a case of severe vertigo from a poisonous dose of quinine. It is, however, not necessary to give it in such large doses. Given a grain at a time, it seems to reduce the irritation of the vestibular nerve, probably by overcoming congestive changes.

On the ground that vertigo is due to anemia of the labyrinth—which, however, is probably not as a rule well founded—Lermoyez suggested the use of amyl nitrite. We are all aware, of course, that in conditions of severe anemia vertigo is common, but whether this is an aural phenomenon or not, even when associated, as it often is, with tinnitus, is a doubtful point. At the same time it is quite probable that the actual cause of vertigo is not so much either congestion or anemia as the alteration in the pressure of the endolymph which may be brought about by either of these states. The bromides and iodides are sometimes useful, and pilocarpine, especially in patients in whom the aural condition is dependent on congenital or tertiary acquired syphilis, has sometimes seemed of value Repeated lumbar puncture has been used with some, though probably only with temporary, benefit. Patients should be advised to eschew alcohol, tea, coffee, and tobacco, to avoid as far as possible mental excitement and loud noises, and to keep the bowels acting well. During a severe attack the recumbent posture should be enjoined, with ice to the side of the head. When all other measures fail, and when life is made practically intolerable, the advisability of destroying the labyrinth—at any rate the static portion of it—should be entertained.

The Treatment of Acute Rheumatism.—Plehn (Deutsche medicinische Wochenschrift) emphasizes the wrong principle which appears to be gaining ground, to throw overboard the older salicylates, on account of their supposed toxic effects on the kidneys. Leuthje was the first to demonstrate the changes in the urine which are present when salicylates are given even in moderate doses. Klemperer considered that it is necessary to use the smallest doses possible, in order not to expose the kidneys to the toxic influence. Hauffe, representing the Schweninger school, which refuses all medicamental treatment, claims to have obtained excellent results without salicylic acid. However, closer investigation has shown that the renal irritation of salicylic acid is more imagined than real, and that perfectly normal, healthy persons frequently pass minute traces of albumin, and even casts, without taking any of this drug. These forms of albuminuria not infrequently clear up while the patient is taking salicylates. He considers that even if slight irritation of the renal apparatus were produced by this drug, since it acts specifically in rheumatic fever, just as mercury acts in syphilis and quinine in malaria, it would be wise to give it freely. The writer says that it is necessary to give it in large quantities in order to obtain the full specific effects. First, however, it must be certain that the rheumatic affection is really acute. He prefers pure salicylic acid to the sodium or other salts. Plehn gives it in doses of 1 gramme (that is, about 16 grains) every hours, or 0.5 gramme every hour during the first day, but none during the first night. On the following days he gives 6 grains in ½- or 1-gramme doses. This is continued until the temperature has been normal for three days and all pains and complaints of all sorts have disappeared. Then he gives 4 grammes a day for a week, and after three further days. during which the patient remains in bed but receives no salicylic acid, he allows him to get up, provided that no

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further symptoms develop. Men stand the doses better than women, and he finds by experience that the proper dosage of this drug can be calculated at 0.08 gramme per kilo body weight per day (this corresponds to about 7½ grains per stone). When salicylic acid produced disturbance of the stomach, or other indications caused him to modify the doses, he preferred to substitute aspirin in doses of ½ gramme, given six to eight times a day. With these doses both of the acid and of aspirin the body weight often increased during the medication, the kidneys were not attacked, and even during a nephritis the condition of the kidneys improved.

He says that salicylic acid acts prophylactically as far as the heart is concerned. Complications such as endocarditis and pleurisy occurred less frequently when salicylic acid could be given freely from the first than in those cases in which it was withheld. He brings forward evidence to show that this drug is not a cardiac poison when given as he has described.

The writer deals with the actual frequency of heart affections in rheumatic fever, and shows that among 319 cases treated by him with salicylic acid, only two left the hospital with chronic heart disease due to the attack of fever for which the patient had been treated. Those cases which are treated outside without sufficient salicylic acid, and which when admitted prove refractory toward the influence of the drug, usually do well when treated by injections of quinine and antipyrin, or by intravenous injections of collargol. He compares his results with those of Hauffe, who deals with his patients by means of so-called physical therapy, and shows conclusively that his results are considerably better.

Role of the Placenta in Puerperal Eclampsia. Meurice (Ann. de la Soc. de Med de Gand) expresses the opinion that none of them satisfy the conditions except the one which holds that the placenta is the elaborator of the poisons which cause the convulsive symptoms. Eclampsia is divided into three periods; originally it is the placenta which elaborates poison; under the influence of this poison anatomopathological alterations occur in the liver, kidneys, spleen and other organs; last of all comes a period in which excitomotor symptoms are manifested, which depend at first on the influence of the toxic product on the brain, and then on the labor which plays the part of a determining cause. In some theories sight seems to be lost of the fact that eclampsia is a trouble coexistent always

with pregnancy or its sequelæ. The effect is taken for the cause. All is clear if we accept the placental origin of the poisons. From this organ the poison reaches all the other organs by way of the circulatory apparatus. The whole organism of the mother is introduced into a vicious circle; first, the placental intoxication; second, the functional troubles that arise from it. This theory accounts better than any other for the facts observed. Resting on exact scientific data and reliable experimental results, it furnishes a simple, logical explanation of the series of lesions and symptoms found, which contradicts all other hypotheses.

An Important Little Work on Biological Therapeutics.

In view of the near approach of the season when biological therapeutics will claim a considerable share of the attention of practitioners, reference may pertinently be made at this time to a unique and valuable contribution to the subject which has recently issued from the press of Messrs. Parke, Davis & Co. The publication coneists of 52 pages, exclusive of the cover, and appears in brochure form. It is handsomely printed on white enamel paper of first quality and bears in colors a profusion of halftone illustrations. The title is "Serums and Vaccines." A brief chapter on the origin and development of biological therapentics, with an interjected hint as to what the opsonins may have in store for us, constitutes the introduction. Then follow chapters on serums—antidiphtheric, antitetanic, antistreptococcic, antigonococcic, antituberele and antivenomous; on tuber ulins; on vaccines, including the new bacterial vaccines which are exacting so much attention from the medical world; on organo-therapy, its development, and some of the important products that are associated with it—"a tabulation," in the language of the brochure itself, "of such creations of biologic pharmacy as are really utilizable in medicine." There are striking pictures of the Company's home laboratories at Detroit, with numerous interior views; the research laboratory; the operating house and biological stables at Parkedale Farm (where the animals are cared for), with accompanying landscapes in nature's colors.

This little book, "Serums and Vaccines," is distinctly "worth while." If you haven't seen a copy, drop Parke, Davis & Co. a postal card at their home offices in Detroit, mentioning this journal, and get one. It is a safe guess that any physician who receives the brochure will read it admiringly and with interest, filing it away thereafter for future reference.

Treatment of Fistula.

J. D. Albright, M D., 3228 Broad St., Philadelphia, in his recent work entitled, "Rectal Diseases, Their Diagnosis and Treatment by Ambulant Methods," says, while discussing the treatment of Anal and Rectal Fistulæ by Local Application: (Page 337).

"After the induration has softened and the pyogenic membrane cast off, so that the interior seems clean and free from inflammation, healing may be stimulated by the application of a silver nitrate solution, 5 per cent., or Special Protonuclein Powder may be dusted along the tract by means of a powder blower. If the internal opening is small, it should be enlarged sufficiently to permit free irrigation through it."

Others have found that in treating internal hemorrhoids that a solution made of Protonuclein Powder or Protonuclein Special Powder with Olive Oil and a small amount of this solution injected up the rectum gives great relief and has marked healing powers. About three grains of the powdered Protonuclein in a tablespoonful of Olive Oil is the usual amount used.

Precautionary Measures.

As every physician has constantly under his care cases of either typhoid, malarial or bilious fever, it is well to remember that precautionary measures are possible, and if taken in time, much of the trouble with these cases is avoided. If it be true that the materies morbi of these diseases belong to the bacillns group, the remedies manifestly are an antiseptic and an antipyretic. As an intestinal antiseptic we have nothing better than salol. The consensus of opiuion is in this direction. When we add the antipyretic and anodyne effect of antikamnia, we have a happy blending of two valuable remedies, and these cannot be given in a better or more convenient form than is offered in Antikamnia and Salol Tablets; each tablet containing 2 1-2 grains salol. The average adult dose is two tablets. Always crush tablets before administering, as it assures more rapid assimilation. As the necessity of intestinal antisepsis in the treatment of this class of diseases is fully recognized, would not the scientific treatment of the conditions preceding them be the administeration of the same remedies? Portifying the system against attacks is the best preventive of them.

Uterovaginal Catarrh, Leucorrhea, Endometritis, Etc.

During the past two years I have experimented with Glyco-Thymoline in the treatment of some of the catarrhal conditions which affect the female genitalia. The splendid results which I obtained on the naso-pharyngeal surfaces led me to try it on other mucous surfaces where the conditions were substantially the same. Actual clinical experience has proven to my satisfaction that in Glyco-Thymoline the practitioner has at his disposal a remedial agent which in my opinion is unquestionably superior to the topical applications which I formerly employed. Without fear of contradiction I can say it is by far the best deodorant ever put in a purulent vagina. Under its influence the character of the discharge is rapidly altered, and that comfort, relief, and freedom from malodor, which is of so much importance to the female patient, is secured.

Glyco-Thymoline, by reason of its peculiar composition, produces the rapid depletion so desirable, cleanses the surfaces and maintains an aseptic condition of the parts.

As an irrigation for the uterus and vagina, solutions of to per cent. to 25 per cent. used (105 deg.) are most desirable; when the uterus is highly congested an intrauterine irrigation of pure Glyco-Thymoline will produce wonderfully good results.

When I exhibit Glyco-Thymoline on tampons I find that pure Glyco-Thymoline produces the best results.

LEWIS P. REIMANN, M. D.

There exist a number of cutaneous disorders which, in the main, are due to a general bad state of the tissues. It is in these that a general upbuilding process must be inaugurated in order to heal and improve the local cutaneous disturbance. It was formerly the custom to order cod liver oil, with good results. Today, it is equally advantageous to give the cord. ext. ol. morrhuæ comp. (Hagee), which acts not only as well but better, and is devoid of grease.—Am. Jour. Dermatology.

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The manufacturers of Listerine are proud of Listerine—because it has proved one of the most successful formulæ of modern pharmacy.

This measure of success has been largely due to the happy thought of securing a two-fold antiseptic effect in the one preparation, *i. e.*, the antiseptic effect of the ozoniferous oils and ethers, and that of the mild, non-irritating boric acid radical of Listerine.

Pharmacal elegance, strict uniformity in constituents and methods of manufacture, together with a certain superiority in the production of the most important volatile components, enable Listerine to easily excel all that legion of preparations said to be "something like Listerine."

"The Inhibitory Action of Listerine," a 208-page book, descriptive of the antiseptic, and indicating its utility in medical, surgical and dental practice, may be had upon application to the manufacturers, Lambert Pharmacal Company, Saint Louis, Missouri, but the best advertisement of Listerine is—

LISTERINE

The Curette.

With many physicians the first thought in uterine bleeding is the curette. The hemorrhage frequently is due to lack of tonicity of the blood vessels and muscular tissues of the uterine walls and to curette in these cases is unnecessary and frequently dangerous. The value of viburnum as presented by Hayden's Viburnum Compound in these cases has been conclusively proven by years of clinical experience. It imparts tone to the relaxed uterine blood vessels and walls and in many cases makes curettement, with its attending dangers of infection and perforation unnecessary.

Medical Gynecology.

The rapid rush for the knife and its indiscriminate use in many gynecological cases where local or internal treatment should have been first considered, is causing the pendulum to swing in the direction of conservative gynecology. Uterine bleeding due to relaxation of the blood vessels and uterine muscular walls can be relieved by promoting tone to these parts through the administration of Hayden's Viburnum Compound, thus making curettement with its attending dangers unnecessary. The same treatment can be used to advantage in uterine congestion with relaxation of the round ligament and other supportive structures. "H. V. C." normalizes pelvic circulation and imparts tone to the uterus and its adnexa.

Every year brings advances in the science of medicine and pharmacy, and the physician who practicing twenty-five years ago often wonders ow his patients took the nauseating doses then repared.

It has only been a few years since predigested eef and the different peptone products were offered to the medical profession, but in these days of harmaceutical research one is always looking forard to some new discovery, and it is for this reason of advances and changes that our pharmacopeia is revised every ten years, but the question is often asked, would it be up-to-date if revised every year?

One of the newest scientific products in the pharmaceutical laboratory is Metabolized Cod Liver Oil. This metabolized, or changed oil is obtained by the action of animal ferments under normal conditions of temperature, and is therefore ready to be taken up by the lymphatics.

Dr. A. Jacoby, in his work on Pediatrics, states, "that one teaspoonful of Cod Liver Oil will never be replaced by three of any other fat." Then how much more valuable this oil must be when put into form ready for assimilation.

Waterbury's Metabolized Cod Liver Oil Compound is advertised in this Journal, and samples may be had from the manufacturer.

Going Some.

The attention of our readers is called to the advertisement of The Abbott Alkaloidal Co. on page vi. The idea is particularly appropriate at this time and will do much to emphasize the fact that Dr. Abbott and his products are right "up to the minute." We suggest that you send for a copy of the "Digest of Postive Therapeutics" if you have not already received one. This is a three hundred page book of practical pointers and will be sent free on request if this journal is mentioned.

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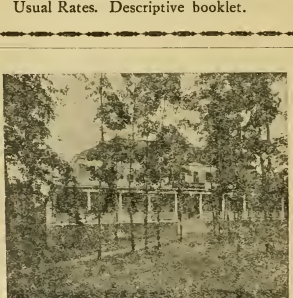

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SOUTHERN SURGICAL and GYNECOLOGICAL ASSOCIATION.

Annual meeting at Hot Springs, Va., Oct. 5-6, 1909.
W. D. Haggard, M. D., Sec., Nashville, Tenn.
Stuart McGuire, M. D., Pres., Richmond, Va.

SOUTHERN MEDICAL ASSOCIATION.

Annual meeting at New Orleans, La. Nov. 9-10-11-12, '09.
Oscar Dowling, M. D., Sec. Shreveport, La.
Giles C. Savage, M. D., Pres. Nashville, Tenn.

MEDICAL ASSOCIATION OF THE SOUTHWEST.

Annual meeting at San Antonio, Texas, October, 1909.
F. H. Clark, M. D., Sec., El Reno, Okla.
Jabez N. Jackson, M. D. Pres., Kansas City, Mo.

TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.

Annual meeting at Richmond, Va., Feb. 8, 1910.
J Howell Way, M. D., Sec., Waynesville, N. C.
LeGrand Guerry, M. D., Pres., Columbia, S. C.

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

Annual meeting at Birmingham, Ala., 1909.
J. N. Baker, M. D., Sec., Montgomery, Ala.
B. L. Wyman, M. D., Pres. Birmingham, Ala.

FLORIDA MEDICAL ASSOCIATION.

Annual meeting at Pensacola, Fla., April 7-9, 1909.
J. D. Fernandez, D. D., Sec., Jacksonville, Fla.
J. F. McKinstry, Jr., M. D., Pres., Gainesville, Fla.

MEDICAL ASSOCIATION OF GEORGIA.

Annual meeting at Macon, Ga., April 21, 1909.
Claude A. Smith, M. D., Sec. Atlanta, Ga.
Thos. D. Coleman. M. D., Pres., Augusta, Ga.

KENTUCKY STATE MEDICAL ASSOCIATION.

Annual meeting at Winchester, Ky., Oct. 1909.
A. T. McCormack, M. D., Sec., Bowling Green, Ky.
Jonn G. Cecil, M. D., Pres., Louisville, Ky.

LOUISANA STATE MEDICAL SOCIETY.

Annual meeting at New Orleans, La., May, 4-6, 1909.
E. M. Hummel, M. D., Sec., 141 Elk Place, New Orleans, La.
E. Denegre Martin, M. D., Pres., New Orleans, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Annual meeting at Jackson, Miss., April 13, 1909,
E. F. Howard, M. D., Sec., Vicksburg, Miss.
J. W. Gray, M. D., Pres., Clarksdale, Miss.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Annual meeting at Wrightsville, N. C., June 21, 1910.
D. A. Stanton, M. D., Sec., High Point, N. C.
Jas. A. Burroughs, M. D., Pres., Asheville, N. C.

NEW MEXICO MEDICAL SOCIETY.

Dr. G. K. Angle, Silver City, N. H. Pres.
Dr. G. S. McLandress, Albuquerque, N. M. Secretary.
Dr. C. G. Duncan, Socorro, N. M. Treas.
Next meeting at Roswell, N. M., in the fall of 1909, the date to be announce later.

SOUTH CAROLINA MEDICAL ASSOCIATION.

Annual meeting at Summerville, S. C., April 21, 1909.
Walter Cheyne, M. D., Sec., Sumter, S. C.
S. C. Baker, M. D., Pres. Sumter, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.

Annual meeting at Nashville, Tenn., April, 13-15 1909.
Geo. H. Price, M. D., Sec., 146 8th. Ave., N., Nashville, Tenn.
B. D. Bosworth, M. D., Pres., Knoxville, Tenn.

MEDICAL SOCIETY OF VIRGINIA.

Annual meeting at Roanoke, Va., fall of 1909.
Landon B. Edwards, M. D., Sec., Richmond, Va.
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Thousands of physicians use no other diphtheria antitoxin than the old "stand-by"—PARKE, DAVIS & CO.'S ANTIDIPHTHERIC SERUM.

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Charlotte Medical Journal.

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UME 60. IBER 5. Charlotte, N. C., November, 1909. $2.50 PER ANNUM

Table of Contents, Page 353.

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Late Researches in Diphtheria Therapy

Investigations by Fritz Meyer (*Berliner Klinische Wochenschrift*, June 28, 1909; editorial comment, *Medical Record*, July 31, 1909) on the effect of diphtheria toxin and antitoxin upon the heart, demonstrate:

1. "Antitoxin, if administered early in sufficient doses, absolutely prevents the fall of blood-pressure."
2. "If given later, but before the fall has occurred, it delays the onset; but
3. "If given after the pressure has once fallen, it is quite without effect."
4. "Antitoxin given early in sufficient dose prevents myocarditis after the injection of toxin in any amount."

Meyer states that large doses of Antitoxin given early will eliminate cardiac complications and postdiphtheritic cachexia. He recommends 5000 units as first injection, and when this is not promptly effective, 20,000 to 50,000 units at a dose.

These doses conform with those of McCollum and other competent observers, who, recognizing the danger in giving too small doses to neutralize the toxins, advocate 5000 to 40,000 units.

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Administer 1000 units for immunizing.

No therapeutic dose should be less than 3000 to 5000 units. In laryngeal, postnasal, severe or neglected cases, 10,000 units.

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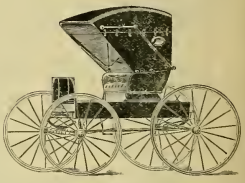

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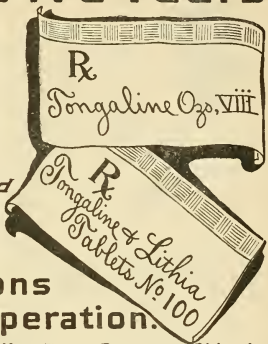

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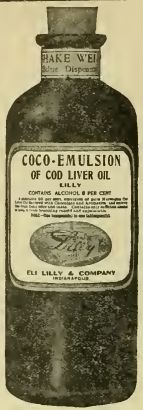

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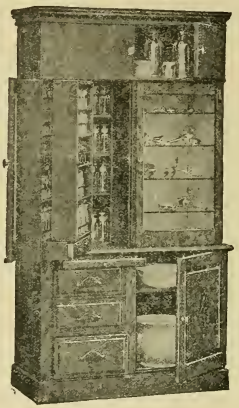

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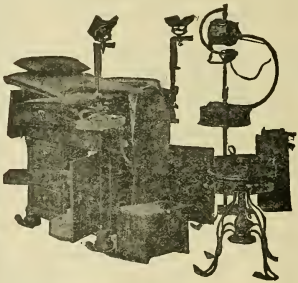

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The Charlotte Medical Journal

VOL. LX CHARLOTTE, N. C., NOVEMBER, 1909. No. 5

Constructive and Imperative Operative Surgery, Extraordinarily Unique Cases, with Successful Results.

By RUSSELL BELLAMY,
Wilmington, N. C.,
Ex-Captain and Senior Surgeon of Squadron A., N. Y. Cavalry, Late Instructor, etc., in New York and Cornell Universities—10 years, Alumnus Bellevue Hospital, New York City and at University of Vienna, Austria.

Since my return to my native State, North Carolina. (1908) after an absence of eighteen years, principally spent in New York, Colorado, and Europe, it has been my good fortune to handle five cases which were and always will be especially interesting, instructive, and novel to me. It seems that the time is now ripe for the surgical world to know about them.

Dr. William T. Bull said to me three years ago, when I told him of the enormous amount of work I was doing and the seven years' experience in one of the hospitals in New York in Lesser Surgery, "You are doing just the thing. So few surgeons know anything about minor surgery; they only know about major work. Fewer lives would be lost, if more attention were paid to cases not in the category of major surgery."

"Will the operative surgeon enlarge his sphere of action and become as well the constructive surgeon, doing the combined work of architect and builder? Are these the fantastic images of a prophetic vision? The history of the development and growth of surgery in the past gives reality to our expectations and hopes of what the future may unfold, and is this, in truth, not the great work of surgery in the future?"—(Ewing Mears).

To save every part of the organism should be the aim of the surgeon, and to remove only those parts which by leaving will prove a detriment to the body. Often it becomes necessary to substitute, and as a covering and filler I have found the egg membrane to be most satisfactory. It is easier to apply than skin and seems to have a special action in filling of concavities, as the following cases will tend to show. After exhausting the libraries here and finding absolutely nothing as to its histology, the following information was mailed me by my friend, Dr. S. B. Schotz, Jr., Medical Inspector for the Equitable, to whom I am especially grateful. He writes in a letter, dated July 9, 1909.

"MY DEAR DOCTOR: I have spent at the libraries of the University of Pennsylvania a considerable time attempting to learn some things relative to egg membrane. Sad to relate, I have found almost nothing.

Egg membrane is added to the egg while it is in the thick-walled terminal part of the hen's oviduct, just before the egg is laid. It is the hardening of the oviduct secretions; likewise is the shell. The egg membrane is a non-cellular, interwoven, and keratin substance like formation containing C., 49.78; H., 6.54. N., 16.43; S., 4.25; and O., 22.90. (Lindvall)."

Technique.—The egg is secured the day it is laid and thoroughly washed and scrubbed with green soap, a stiff brush, and warm water, followed by a solution of bichloride of mercury 1-1000. It is then cracked with a sterilized hammer and the shell removed by pieces, or it is cracked and divided, the yolk and white emptied, and with fine forceps and scissors the membrane is removed in strips ½ inch wide to two inches long. The inner or albuminous surface is laid on the surface of the wound, a sterile salt solution dripped on and rubber tissue placed over it, which is held in position by sterile gauze.

One of the interesting things about the membrane is that it in every case has grown, no pus ever having shown itself. The great annoyance, liability of infection, and subsequent suffering of the patient is avoided. Dr. J. M. T. Finney in a recent article on skin grafting, cites cases which he classifies as unsuccessful. One feels like suggesting that an area, even as large as the cases he mentioned, could be covered with membrane, a number of eggs, it is true, being required.

In all the cases, from time to time, new membrane was added to facilitate the healing of the granulating surfaces, and increase new tissue cells. In some inexplainable way, the membrane seemed to act as a filler as well as a surface covering.

CASE I., E. W., CRUSHED AND TORN LAST PALMA PHALANX MIDDLE FINGER

This patient had a box weighing over 100 pounds fall for a distance of some inches on his finger literally crushing out, at least, one-third of the end of the finger. After using every known method for some days, a deep gaping wound, going almost to the phalanx, still remained. At the same time the nail was removed.

In order to get the opening to heal, I, from time to time, placed pieces of membrane over the end of phalanx, as described by me under head of technique. The finger

not only completely healed over, but has been so built up as to virtually make it stand out as the others.

The patient, a mulatto, has only a modified color of the joint, it being rather white, while to the feel it is very velvety.

CASE II., E. N., FIRST, SECOND, THIRD FINGERS, FIRST AND SECOND JOINTS OF LITTLE FINGER TORN AWAY BY RICE THRESHING MACHINE.

After trimming out and endeavoring to save as much of his hand as possible for two or three weeks, freeing it from all infection (the patient having been seen six hours after he had met with the injury on a rice plantation some miles down the river). I found that in several places, especially the joint of the little finger, there was virtually no covering, and in these places egg membrane was rather freely used, as well as over the end of the index stump.

Patient is now well, and by having saved one phalanx of the little finger, as well as replacing parts of the first, second, and third metacarpo phalangeal joints covering, this man is able to perform a fair amount of work and especially carry on part of his labor, using a hoe in the fields.

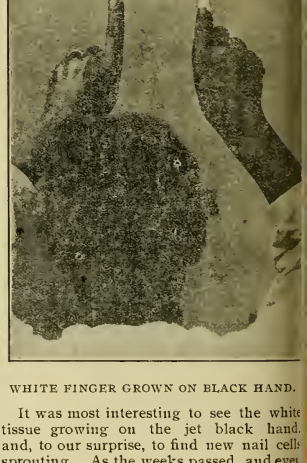
CASE III., C. H., SLOUGHING UNGUAL FIRST AND SECOND INDEX FINGER JOINTS; PHALANGES EXPOSED AND NECROSED BONES; ABSENCE OF NAIL AND SKIN; METACARPO PHALANGEAL JOINTS DOUBLE SIZE. (CHEMICALLY PURE CARBOLIC ACID BURN).

This case was referred to me by a physician with request that amputation be made.

After I had seen her once, she went to the hospital, without my knowledge, and there she tells me a consultation of surgeons was held and they decided to amputate her hand. She again reported to me and I found a virtually indescribable condition. Considerable cellulitis of the hand existed. The finger had only last phalangeal joints; necrosed bones, foul smelling, were showing protruding through a sloughing mass of tissue unenveloped with skin. The metacarpo phalangeal joint was as large as her thumb, and the finger was so foul smelling as to have tempted me to ask my assistant, a young woman to whose care and patience much of the construction of the new finger is undoubtedly due, to open wide the windows.

The history of the case was that at some time she had shown evidence of syphilis, and had a mild attack of hemophlegia, but had been successfully treated by her physician.

She implored me many times, in the name of the Almighty, not to amputate her finger, and at times her prayers were almost pathetic. Large doses of anti-syphilitic preparations were administered and her finger and hand carefully treated by all known anti-septic methods. Great patience was shown by each of us in the separate sittings. At different times, necrosed bones of two last phalangeal joints was removed by incisions being made on the side of the finger avoiding the tendon, or at least, what was left of it. By the application of splints, we succeeded in keeping the member in excellent position.



WHITE FINGER GROWN ON BLACK HAND.

It was most interesting to see the white tissue growing on the jet black hand, and, to our surprise, to find new nail cells sprouting. As the weeks passed, and even months, the finger began to assume original proportions, as a part of a nail had grown and the two joints were partially restored with a distinct line of pinkish white and black in evidence.

While the patient has no control over the movements of the two joints, partial flexion and extension of finger exists, she has to all appearances a slightly shrunken white finger grafted on a black hand. This patient, a woman about sixty years of age, was seen and hand dressed seventy-two times in the space of three months.

This case seems incredible, but it is the greatest proof of my twenty years of study

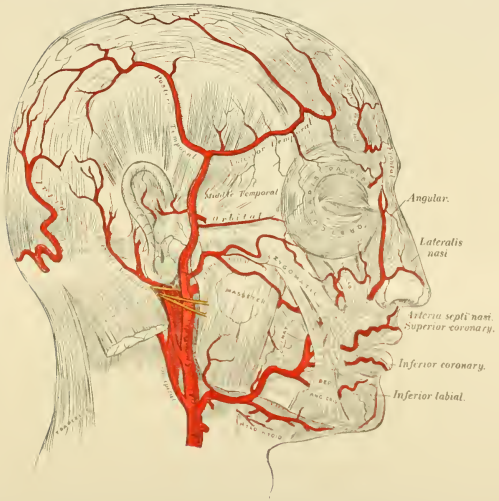


Figure 285. Arteries of the Face and Scalp--Grays' Anatomy.

that apparently useless parts of the body can be restored or saved, by reconstruction, with patience and application of unique, novel methods.

No. 4., X. Y. Z.—Laceration with complete obliteration of hymen, partial perineal tear. Picket fence injury. Six year old child. Medico legal interest.

As is the childish custom in villages and cities in this part of the world, children straddle the fences and often banter each other in the rapidity in which they can walk. This little girl slipping was impaled and had to be bodily lifted from the fence. She partially fainted, and when seen by me less than an hour afterwards, she was in a very nervous state and was suffering considerable pain. After she was chloroformed and a fairly large amount of clotted blood removed, it was found that, for a distance of one half inch, the hymen and perineum was destroyed, and the roof of the wall of the vagina badly lacerated. After trimming up the edges the parts were easily apposed and sutured. The most careful anti-septic methods were used and the limbs tied together.

In a week the parts were healed, and in two weeks the little girl was returned to school.

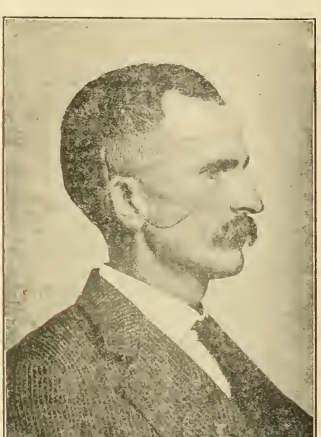
Medico Legal Interest.

This case is not only exceedingly rare, as I am unable to find anything in literature simulating it, but is recorded especially to be a beacon light in studying all cases of ruptured hymen as proof of chastity.

No. 5., M. J.—Bevelled partial ellipse incised wound virtually severing principal attachments of external ear.

While trying a pair of mules, this man was thrown over the side of the wagon and one of the wheels ran over the side of his head, making an absolutely indescribable condition. Dr. W. J. H. Bellamy, my father, found the patient, a few minutes after the accident, lying in a state of collapse, semi-conscious, and bleeding profusely, as not only the temporal but many of the smaller branches of the arteries were severed. Dr. Bellamy succeeded in partially stopping the hemorrhage, and had the patient brought to my operating room.

Adrenalin and effusive stimulants were administered and the injury carefully examined. The patient was hardly conscious when we began not only to tie the bleeding arteries, but if possible to replace the injured member. It was easy to carry the pinna well forward and place it over the temporal regions, and the glistening skull was easily noticed. Some of the occipito frontalis and fashion was detached as far as the parietal eminence, and the wound was full of the dust and dirt of the street. It was cleansed with difficulty, and the external ear rapidly assumed a bluish, turgid, swollen condition. Drains of gut were inserted, and a series of interrupted sutures placed.



It will be necessary to state on account of the rather poor photograph that a part of the posterior incision was at the juncture of the pinna and skin; the pinna was not only not lacerated but scarcely abraided.

On account of the bevelled, incised character of the wound apposition of the parts was fairly easy. Carefully ridged padding of gauze around the pinna tended to relieve it of pressure, and the patient was kept absolutely still for a number of days.

As a complicating injury, three ribs on the left side were broken, fifth, sixth, and seventh. A study of this case and the accompanying plates will tend to prove the supreme rarity of an injury similar to this, as well as the assurance that the restoration and vitality of parts of the human body seem almost incredible. As we study the plates, we find that every nerve supplying the external ear was partially or completely severedi As can be seen the blood supply was absolutely cut off, except a branch of the temporal, which entered the pinna through the anterior aspect. This infinitesimal quantity of blood passed through the anterior anastomosis with branches of the

facial, and a posterior branch with the occipital.

As the days passed, the pinna gradually regained its color, and the senation was partially restored. On account of the perfect growth of the external ear the hearing does not seem to have been affected. The patient has now returned to work.

10 North 3rd street.

The Duty of The Doctor to His Municipality.*

By Roy K. Flannagan, M. D., Health Officer, Charlottesville, Va.

Duty Sense of the Doctor.—Of all the callings to which men give themselves it would be easy to demonstrate, if it were not in this presence totally unnecessary and inappropriate, that the duty sense of the average doctor of medicine reaches the highest point, and every failure in the fulfilling of a duty on the part of the physician is, in my judgment, because of a failure in the apprehension of that duty and not on account of wanton neglect. As one who for fifteen years has trod the path of this profession, and whose knowledge of the common failings of his class is gained by a rather deeper acquaintance with the failure side than with success, I am the less hesitant in laying before you now somewhat in detail an aspect of the doctor's duty which has in many localities been totally misapprehended.

Service Withheld.—Though the doctor gives himself freely in service and sacrifice to the welfare of the individual sufferer or to those individuals who constitute his practice or who ask for his aid, I wish to emphasize that he does not render to his city, town, village or community that full and efficient service which it has a right to expect and which service is all the more binding upon the profession, because only the members of that profession know to what extent it is withheld.

The Doctor as a Citizen.—Let me quote as a kind of text to what I have to say Section one of Chapter three of Principles of Medical Ethics adopted unanimously by the House of Delegates of the American Medical Association at New Orleans, May 7th, 1903. "As good citizens it is the duty of physicians to be very vigilant for the welfare of the community and to bear their part in sustaining its laws, institutions and burdens. Especially should they be ready to co-operate with the proper authorities in the administration and observance of sanitary laws and regulations. And they should be ever ready to give counsel to the public in relation to subjects especially appertaining to their profession."

The Doctor's Obligation.—With the knowledge and equipment for the highest service it becomes, in my judgment, a sacred obligation upon the physician to use to the full his capacities and his qualifications not alone for his fellowman writhing in pain before him, but his fellowmen in the throes of social and civic agony. And who need oftentimes the well balanced conservatism of a level-headed thinker more than they need their material wants supplied or their physical ills relieved. That very conservatism, however, which makes the doctor's advice worth having, renders him slow to take the initiative in public matters, and so if he would make a start toward assuming his fair proportion of the civic burden (which share I repeat is larger than that of the average man) he needs to discipline himself by closer attention to the minor matters of public concern, which daily come under his observation or lie directly within the province of his professional duties.

The Doctor's Characteristics and Qualifications.—I hold, and I believe it can be demonstrated, that the qualities which are demanded of and are developed in the average doctor by force of the circumstances of his daily life and in consequence of the attitude of mind which comes from his peculiar relationship with mankind that he is best qualified to lead and instruct the people of his town or community, along all lines which make for social and civic as well as physical betterment. He knows the needs of the people as a whole, he sees the seamy side in the houses of the poor, he gets the viewpoint of the merchant and the clerk, the professor and the rich man pour their woes and their wants into his open ear, their difficulties and trials become his. Who, therefore, is so fitted to adjust them and to apply the cure?

Responsibilities for Health Department.—To begin with, many municipalities and any number of smaller communities have no adequate facilities for meeting the public health needs of the locality. No record of deaths, no record of births, no idea of the number of cases of preventive sickness in the neighborhood, no well defined plan for lessening the mortality or ameliorating the conditions which tend to increase the death rate. This state of affairs imposes a duty that none but the medical profession can meet. Whether he realizes it or not the doctor must stand sponsor for the character of the Board of Health of his town. It is, therefore, distinctly "up to him" to make it what it should be. The individual doctor is the pivot on which the health office swings, for without his co-operation there is no hope for efficiency. The general

*Read before the Virginia Medical Society, October, 1909.

public is not alive to the possibilities for good that lie in a properly conducted health department, consequently the financial support of the department is invariably inadequate to its needs. The only hope, therefore, for rapid progress lies in the high sense of duty to the public welfare in the doctor which the ethical principles of the medical profession inculcates and which needs to be more deeply impressed upon medical men everywhere lest the old ideals lose their force.

Duty of Prompt and Accurate Reports.—Then again a concert of action is necessary among the doctors in the matter of reporting infectious diseases. The health department is absolutely dependent upon them for this information, and upon the promptness and accuracy of these reports the whole public health structure rests. The doctor's first duty, therefore, to his municipality after aiding in the formation of an efficient health department is to report the preventable diseases he is called upon to treat, especially typhoid fever and tuberculosis. Every doctor reports scarlet fever and diphtheria and smallpox, but from the standpoint of the community welfare it were better to neglect to report smallpox than to fail to regularly record and report every suspected case of consumption, for small pox kills its tens, but consumption kills its ten thousands. The doctor's heart and hopefulness have out-run his head and his helpfulness in his dealing with the early stage of tuberculosis, and the tendency has been to let these cases rock along in the current until past the point beyond which struggle is of no avail. Now that the profession's and the world's eyes are opening to early diagnostic measures and positive methods of cure of this dread disease the doctor becomes a malpractitioner of a terrible type who does not arm himself completely for this battle, and who does not add his strength and his equipment to that of every agency in his town or community that tends to lift the terror of this scourge from the hearts of men. Prompt, accurate and complete reports to the health department then form the essence of the highest service a doctor can render his municipality. For half-hearted, slip shod support on the part of the profession after all is the only clog that can delay appreciably the march of sanitary science. The people are waking up with increasing knowledge. They are falling into line and tangible results are evident everywhere.

Duty and Necessity of Leadership.—The very articles of the doctor's faith demand that he take the leadership in this onward march. It may require the learning of new tactics and a change of viewpoint, but who will say this is not preferable to being left behind, or trampled down or ignored. The doctor must not miss the significance of the trend of events. For unless he broadens the range of his activities to include a deeper knowledge and a wider practice in the preventive side of his profession the future holds no rainbow of promise athwart his pathway.

Civic Duty.—Another duty touched upon in the text quoted is that of bearing full part in sustaining the laws, institutions, and burdens of the community. I have already dwelt upon the doctor's special qualifications for service. I wish to specifically lay before him the duty of getting into the thick of his municipal or community life, instead of wrapping his dignity about him like a cloak and letting the places of honor and preferment in the community fall into the hands of those whose use of them have done so much to discredit our whole system of government. The doctor should get into politics; the council chamber needs him, the school boards need him sadly, the boards of supervisors need him, the whole governmental scheme needs his qualities of heart and head and hand. It means sacrifice and disagreeable duties and "more kicks than ha'pence," but did these ever deter the real physician when he heard the duty call. The trouble with the doctor has been that he has pulled at cross purposes with his brethren so long that his sight and hearing have been somewhat dulled. It may be that he is so wrapped in the task of trying to keep life in the sick individual or so busy trying to keep up the fences of his precarious clientele (a well nigh impossible task) that he has not had any eyes or ears for the special fitness of the rival practitioner for service of a wider kind. Who knows but that observation along this line may not prove to be the best kind of enlightened selfishness.

Duty of Public Expression.—Another duty the doctor owes his people is the expression of his thought either in public speech or written word. The most useful knowledge in the world is his, and practically his alone, we see every day in the newspapers and magazines accounts of this or that disease, or this or that remedial measure, the details of which have been the common knowledge of the profession for years, and yet the public reads it eagerly as news, and it is news. Whose fault is it that the general public is just beginning to appreciate that they must swallow a portion of the discharges from the bowels of a sick man before they can have typhoid fever, or that a bad cold comes from putrid air and not from fresh air or drafts. These facts are beginning to break as a great light upon

the eye of the public, but the body of the profession has but small part in this illumination. Each doctor, it is true, bears his own torch, but it is as though the world is dotted with lightning bugs. When they should be, as it were, great dynamos or electric search lights, or even the biograph conveying the energy or the light or the many-sided truths of the incomparable science of health. With knowledge even from the Garden of Eden came grave responsibilities and the doctor, more than others, accepted the charge as the keeper of his brother. Then his educated mind and tongue and pen should be used in the broadest way for the benefit of his fellowmen.

Duty of Protest Against Social Crime.—In addition to matters of a purely medical nature, upon the medical profession there rests in a peculiar way the solution, if solution there be, of the great social evil, and the checking of the tide of young men and boys who yearly by the thousand dash themselves to pieces on the breakers that girdle the cave of the scarlet woman. Who is to sound the note of warning if the doctor does not? Who knows like he the needs of the hour? What higher service can one perform to his municipality than to stand as a bulwark against the overwhelming ignorance and heedlessness that wrecks so many men and leaves our girls and women at the mercy of ills, the origin and end of which take hold on hell itself.

Duty to Discriminate in Regard to Professional Secrecy.—And here let me deplore the misapplication of that principle of ethics in the code which seals the lips of a doctor to the undoing of the innocent marital victim of a conscienceless libertine. This rule of absolute secrecy under any and all circumstances, however virtuously conceived, has served in innumerable instances to foster unchastity in men and women, who knowing that the knowledge of the consequences of their impure practices would remain forever locked in the breast of the physician, went out from his office to spread the miasm of their presence into homes of innocence and purity. If it is right at the demand of the law for the doctor to unbosom himself of the secrets of men, are there not times when the highest law, the inner light from God, authorizes, nay, demands a loosening of his lips? The medical profession must purge itself from these time-worn and suspicious alliances with conditions that tend only to the destruction of civilization's most cherished institutions, namely, the family and the home, the doctor is no farther confessor, but a man whose responsibilities reach into the future of the race while that race walks this earth, and to the purity and healthfulness of that future he is pledged.

The Duty of Organization.—To be able to find fault with and to discover new duties for an already over-worked and certainly under-paid profession is an easy task, the question as to how the purposeful doctor may be able to do these things brings me to my last point, the greatest duty he owes his municipality, i.e., to get nearer to his professional brethren in more active, effective organization than has been his habit hitherto. The local medical society which heretofore has been more or less of a purposeless farce, must come to be the forum where the discussion will not simply be stuff, cribbed from some ancient authority and worked over, but pointed, definite essays designed for publication, with purpose in every line.

Results the Touchstone.—Our day is a day of deeds rather than of words, and "results" form the touchstone of every activity, so the perfunctory and ill-attended local medical society meeting must give way to definite business-like sessions, in which committee work before hand shall have reduced matters for discussion to workable shape.

Details.—There should be a Board of Health committee to keep the society in touch with that body, backing it up with active aid or with the not less important constructive criticism. And then, too, if the local society really means to measure up fully to its duty to the municipality it must have a wise and very alert publicity committee to edit and place before the public in the daily press, matters under discussion which the public should know. The doctor has blamed and laughed at the people for their ignorance of things medical, and yet no steps have been taken by the profession at large to enlighten them. Let it be done authoritatively and systematically through a publicity committee.

Duty of Study.—This business-like committee plan should likewise be applied several meetings in advance in connection with topics for special study, and let it be *study*, not a farce. The life of the people lies in the hand of the doctor; surely he should give his best thought and study to the most approved methods of treatment; he is not doing his duty to his people if he does not use the opportunity afforded by his society meeting for keeping in touch with the rapid advance in the healing art which the world of thought and investigation lays at his door. The "Regular" says "all methods for the cure of disease are mine to be used for the healing of mankind," and yet he frequently passes by many remedial agents without a look. What does the average doctor know about psycotherapeutics? The

quacks take possession under the name of a new cult and the doctor has a black eye, what does he know about the principles of massage and the value of manipulation of joints and muscles in restoring strength to wasted tissue, must the osteopaths "*et id omne genus*" with their unscientific claims black the other eye? The field is broadening, and of course all knowledge cannot be attained, but the community has a right to demand that the physician who serves it shut up no avenue of knowledge that makes for the health and consequently the happiness of those he serves. This knowledge cannot be gained by listening to a paper on the subject or even by reading an article from the highest authority upon it. It must be gained by painstaking study and the clash of mind with mind in systematic discussion of all the points involved, and if possible by demonstration. This duty to the public may easily prove to be the highest duty to one's self. The pleasure as well as profit to be gained by such a course of study is sure to attract all the best men in the profession to an enthusiastic support of the idea, and it needs but the initiative of some two or three earnest men in every place to put it into operation. Can it not be done? I claim no originality for this study plan. The American Medical Association has set its seal of approval upon it, and I but emphasize it as a solemn duty the doctor owes the people from whom he gains his livelihood and to whom he has dedicated the greatest possibilities of his life. His profession is advancing with leaps and bounds, the graduate of ten years ago must change his library almost throughout to get into touch with the vanguard of today. How much more important, therefore, is it that mutual study cement the fellowship which should exist between members of a profession whose altruistic deeds are the wonder and admiration of the world.

May I for a moment go over the points I have made as to the doctor's duty.

1st. To build and back his board of health. Reporting diseases with careful attention to details.

2nd. To throw himself into the political and civic life of his town, by standing for office and working for the highest good of his people.

3rd. To give freely by tongue and pen his thoughts and observations as to the best methods of control and cure of disease. The articles for publication always being carefully censored by a committee of his confreres.

4th. To instruct and warn men and boys, as well as women and girls, against the evils that lie in the train of vicious and immoral conduct.

5th. To labor for the correction of any tendencies and practices in the profession, however time-honored, which in any degree cloud the purity of his sacred art.

6th. And, finally, as a means to these duties. Business-like organization for careful study of all subjects that can promote efficiency in a calling devoted to the public welfare. Is it too much to bespeak for the doctor in Tennyson's words—

> A life in Civic action warm,
> A soul on highest mission sent,
> A potent voice of Parliament,
> A pillar steadfast in the storm
> Should licensed boldness gather force,
> Becoming when the time has birth
> A lever to uplift the earth
> And roll it in another course.
>
> Who loves not knowledge? Who shall rail
> Against her beauty? May she mix
> With men and prosper. Who shall fix
> Her pillars? Let her work prevail.

A Cursory Review of Pulmonary Tuberculosis.*

By Bittle C. Keister, A. M., M. D., Roanoke, Va.

In view of the great importance attached to the subject pulmonary tuberculosis in the recent past and the extreme and diversified theries and opinions held by eminent scientists, medical text-book writers and fellow practitioners of medicine, I come before you with some degree of trepidation in attempting to grapple with such a monster subject.

More than a hundred years ago this monster tyrant was reccognized and treated as a contagious and dangerous disease, and its victims were shunned and rigorously isolated. These restrictions were enforced in Portugal and also in the city of Naples. The physicians were required by law to report all cases of consumption and were liable te heavy penalties for their failure to do so.

All consumptives, as previously mentioned, were isolated, and their clothing, the furniture of their rooms, and all the ordinary articles used, were destroyed after their death. The rooms were also thoroughly cleansed and purified. These laws were rigorously enforced for more than fifty years.

Notwithstanding these facts, this great plague continued unabated and undaunted in the devastating career, spreading the death-laden germs throughout all Europe. These same restrictions with many more added on have, for the past quarter of a century been enforced in our own tubercular stricken country, and yet the great plague is still roaming, claiming his vic-

*Delivered before the State Medical Society of Virginia, at its meeting in Roanoke, Oct. 5 to 8.

tims to the sad tune of *over one of every seven of the deaths that occur in the entire world*, from all causes including war, famine, pestilence and alcohol.

The every day experience of pathologists, connected with our leading scientific schools and institutes, in the recognition of healed and unsuspected lesions in the lungs and othdr parts of the body, is sufficient evidence to demonstrate the wide prevalence of non-active infections as well as the inherent powers of individual resistance.

Statistical observations concerning the frequency of tuberculous lesions, found during port-mortem inquiry have varied considerably, according to the thoroughness with which all parts of the body have been explored. During recent yeais these researches have been conducted in a more systematic manner than formerly, and reported cases of latent infection aie for more numerous.

Naegeli's statistics upon this subjet obtained from the critical stady of five hundred autopsies at Prof. Ribbert's institute in Zurich, are particularly startling. After carefully inspecting every organ of the body including the lymphatic glands as well as examining a large number of microscopic sections, he reports the finding of tuberculous lesions in 97% of all the cases up to the fifteenth year, 96% up to the eighteenth year and nearly 100% up to the fortieth year. These results apparently corroborate tho popular German belief that every person possesses a slight focus of tubercular infection.

The obscure localized lesions, affecting the vast number of human beings compared with those actually succumbing to the disease of pulmonary tuberculosis, affords a striking commentary upon the effectiveness of self-immunization. In this connection it is not only necessary to consider the many individuals who perish annually from the disease, but also the myriads of those whose capacity as wage earners is restricted. The number thus afflicted is truly appalling, and in nearly all countries, exceeds in economic loss and human suffering all other combined agencies which contribute to the pathos of fate.

When we consider the working power of labor which constitutes the chief commodity of State, it is not difficult to comprehend the tremendous depreciation of economic resources entailed by the ravages of such a disease. Even without regard to the magnitude and depth of human suffering, the deprivations and blighted prospects incident to prolonged illness, the dismemberment of families, and the agony of heart and mind, *the glaring fact remains that the prevalence of pulmonary tuberculosis constitutes a national, a racial*, and a *social problem*, comparable to which none other is worty of consideration. It has been carefully estimated that over 1,500,000 people are annually incapacitated for work in the United States on account of this one affliction. One hundred and fifty thousand is a low estimate of the number of lives directly terminated in the United States each year by tuberculosis.

The average age at the time of death is computed at thirty-five years, enforcing an annual preventable loss to the nation of many years of future industrial activity, approximating one half of man's average existence. If the value, to the State, of each healthy inhabitant during the entire period of usefullness is estimated at $1,000, the economic loss in one year from deaths so premature will approach at least $500 for each individual thus removed, making an annual drain of $75,000,000 upon the United States from this source alone. This is entirely exclusive of the additional expense necessitated for the maintenance of charity organizations and the demands imposed by the disease upon private benevolence.

The above figures form a very conservative estimate of the potential loss each year in the United States from a cause admitted to be within the limits of prevention. The computation of many students of political economy and observers of medical conditions estimate the financial loss to this country as a result of tuberculosis to vary from $200,000,000 to $400,000,000 each year. In New York City 15,000 people die annually from this disease and abovt an equal number die annually in the States of Illinois and Ohio. In New York City, in 1905, 32,000 cases of tuberculofis were reported to the board of health. In Austria the tuberculin test has recently been employed upon healthy soldiers, with a *positive* result in 60% of those who were presumably well, thus demonstrating the fact that a latent focus of tubercular infection existed in each one of these apparently healthy soldiers.

If this test were used in this country among the apparently healthy no doubt a like result would be obtained. We can readily see how appalling this condition of things would appear, and how important it is for the medical profession to begin the great fight of educating the public along lines of hygiene and sanitation as a preventive measure against the spread of tubercular infection.

When we consider the astounding facts that over one million human beings have this year surrendered their lives to this arch enemy, including over one hundred thou-

sand of our own people in the United States, twelve thousand in the City of New York alone, aggregating an average of about three thousand persons each day in the year, with a possibility of indefinite continuance of these conditions, is it not high time for every father, mother, and child to buckle on the armor of warfare to save our nation from parasitic decay and destruction?

I have endeavored to portray, in a conservative manner, the great havoc that this greatest of all scourges is playing with the human family, and will now proceed to give you a few additional ideas of the nature and chief characteristics of this malady before offering some plain but scientific facts for its prevention and extermination. Before going to war with so formidable a foe it might be well to ascertain, if possible, the strength and chief traits of our enemy, giving due consideration to the various lines of procedure, the modes of invasion, the habits and even the topography and climate of the country. Until this is done we cannot expect as good results from our efforts toward the overthrow of this king of all diseases.

We are all familiar with Dr. Koch's discovery of the bacillus tuberculosis in the year 1882, which revealed to the world not only the hiding places, but the habits, actual work-shops and full paraphernalia of this secret foe. By an original method of differential staining, Dr. Koch succeeded in isolating the tubercle bacillus and demonstrated its presence in infected areas in all parts of the body. Previous to this, characteristic tubercle formation had been recognized in the scrofulous affection of glands, bones and joints, although the precise infective agent had not been discovered. The recognition of nodules or tubercles in the lungs was obtained about the middle of the seventeenth century. At the beginning of anatomic investigation with the discovery of cavity formations and pus collections, numerous conjectures were offered as to the pathogenesis of the disease.

The first efforts towards the inoculation experiments were made in the beginning of the nineteenth century, but were not attended with clearly definable results. Virchow cleared the atmosphere to some extent by expounding the pathologic and histologic structure of tubercle. Villemin, in 1865, conducted a series of inoculation experiments of the greatest value. In addition to introducing into animals an infective material obtained from tuberculous tissues and the sputum of consumptives, he injected into a second group some non-tuberculous pus, and in a third, a caseous matter from tuberculous cows. A tubercular deposit was found after these injections confirming the theory of the specific infectious nature of the disease.

It remained, however, for the distinguished Dr. Koch to demonstrate the absence of tubercle bacilli in other than tuberculous conditions. He even accomplished the successful inoculation of animals from pure artificial cultures of tubercle bacilli, after the elimination of all extraneous elements, and the removal of all accessory sources of error. Dr. Koch thus established the real cause of tuberculosis among man and animals by the discovery of the bacillus and confirmed it by the results of inoculation experiments.

The apparent etiologic identity of all forms of tuberculosis in different species was determined also upon the basis of the characteristic histologic structure of the primary tubercle. Recently a mass of evidence has been presented by numerous observers, both for and against the acceptance of essential difference of essential difference in the cultural characteristics, virulence and powers of transmission. While we are of the opinion that human and bovine tuberculosis have the same origin and can be transmitted from one to the other, yet there is great room for speculation; but suffice it to say we are more interested in eradicating it from our fellow creatures, whose lives are more precious than gold or silver, than we are in eradicating it from the lower animals.

In this connection, if you will permit the digression, I am of the opinion that every up-to-date physician should be able to use and own a first-class microscope with an oil-immersion lens that he may diagnose his cases at his office instead of sending specimens off to the specialist. There is no good reason why every general practitioner who has any aspiration to keep abreast of the times, should not do his own bacteriologic work. The diversion from the routine part of his work and fascination of spending at least one afternoon of each week in laboratory work, saying nothing of the consolation of being able to diagnose his own cases without outside assistance, is sufficient to amply reward him for the outlay in the purchase of a microscope with all the necessary equipment. Of course if he expects to do good and satisfactory work he should take a special course in microscopy and bacteriology provided he did not get this knowledge in his regular college course.

In the study of the tubercle bacillus in its various aspects, we find some very important features to consider, not only in reaching a clear diagnosis, but also in making a prognosis. In studying the anatomy of the tubercle bacillus we find the length

varying from one-fourth to one-half the diameter of a red blood corpuscle. This difference in length and shape varies with the virulence and stage of the disease. Short and thick bacilli indicate great virulence, and when clumped toogether in schools the virulence is even greater, while if the bacilli are long, flexed and scarce, it indicates a chronic condition of long standing. There is also a marked difference in the anatomy of bacilli from sputum and those from culture growth.

These little pointers I have learned partly from actual experience in my labratory work since taking a special course in research work at the Pathologic Institute in Berlin, and consider them worth remembering.

Having in a crude way searched out the real cause and working force that destroy the living tissues of the vital parts of our organism (the tubercle bacillus) we will proceed to show some of the chief modes of contagion, the main routes and thoroughfares travelled by this marching army of destructive parasites whose camps and temporary abiding places are found in every nook and hamlet throughout the world. Only recall some of the myriads of sources from which this infection is carried and spread over the country. Go with me, if you please, to the work-shops, and the parasite-producing industries of our cities!

First among these are the dust-producing trades which cause many of the various throat and lung diseases. Take the cement factories that are now springing up all over our country and whose business it is to manufacture dust. The workers are surrounded by and work in an atmosphere made foggy with small particles of quicklime, which makes up the major part of the commercial product called cement. Add to this the fact that the workers, in order to adjust the machinery, and keep the equipment going, must be constantly exposed to the sheets of flame that keep the massive cylinders red hot, and you will have only a faint idea of the cement worker's life. The clouds of curling dust arising from these sactories can be seen for miles away. This dust, when inhaled, produces an irritation of the mucous membranes of the mouth, nose and throat, and is also carried to the bronchial tubes and lungs, setting up irritation of these organs, and producing a raw surface for the direct invasion of the tubercle bacilli.

The cement factories of America might well be called the homes of tuberculosis. This applies with equal emphasis to the fertilizer plants, glass factories, cotton mills, coal mines, etc., etc. In glass factories, children do a large part of the work, and while the father is breathing quick-lime dust in the cement factory, his child is breathing pulverized glass in the glass factory. The one eats the tissues of the lungs, the other irritates them, until they are in a receptive condition for any germ disease. In the coal mines, while the fathers are being crushed, crippled and killed, his children are working in the coal-breakers above. For ten or elven hours a day these ehildren of ten or eleven years of age, stoop over the chute and pick out the slate and other impurities from the coal as it moves past them. The air around them is so black with coal dust that they are compelled to wear lamps on their caps at noonday in order to see the coal which is moving under their feet.

Many of these children contract miner's asthma, and finally develop pulmonary tuberculosis. There are now in this country forty-two thousand children employed in mines and quarries. Eighty-two thousand children are to-day breathing the lint of cotton mills in the United States. Five thousand three hundred and sixty five are breathing pulverized glass from glass factories. Eleven thousand four hundred and sixty-two are steeping their systems in the nicotine of tobacco factories.

In the laundries of our countries little girls and young maidens are standing all day sorting filthy linen, or folding flat-pieces into a hot mangle where the heat is so intense that they are compelled to work almo,t without clothing. Many times they are worked far into the night and must return to their homes through the dark and deserted streets of our cities, and in all kinds of weather, uncared for and unprotected. We can readily anticipate the risk these young girls run in leaving these steam-heated apartments and rushing out into the crisp, wintry night air, trudging their way through the suow or rain to their respective homes in some distant and perhaps unsanitary part of the city.

Are these not favorable sources for the propagation and spread of tuberculosis? Those induitries which employ little children just long enough to sweat out their vitality, leaving them diminutive little wrecks to drift aimlessly through a long, dependent life of poverty and disease, should be classed as social parasites and should not exist in any civilized country.

We might cite hundreds of such sources where the constitutions of the youth of our land are ground up to these mills of commerce. After going through these various processes of grinding there is barely enough constitutional vitality left to survive that age when tuberculosis and other contagious infections are most apt to attack and swallow them up. It is usually when the con-

stitution is run down and at a low ebb that tuberculosis is most liable to be contracted. One of the chief characteristics of the tubercle bacillus is to start to grow and multiply when the soil is suitable. Weak constitutions furnish this kind of soil. We find these weaklings in all lines of trade the great majority of whom, if put to the tuberculin test, will be found to have tuberculosis. These weaklings can be found in candy factories where rhe *fly* is a constant visitor and on-looker and is ever ready to deposit his share of infection on the candy that we purchase from the confectioners.

Over half a million bacilli have been found in one fly speck, and his flyship is capable of carrying over 6,600,000 bacilli on his legs and wings. One person who has tuberculosis in the worst stage is capable of expectorating in a single day over one billion of the bacilli. We have similar conditions to the above in our bakeries, where possibly the head baker is a victim of tuberculosis, and with his usual *domestic* companions, the flies, contribute a large share of this infection, in the way of deposits, to the bread we eat on our tables. The same rule applies to our tailor shops, where tubercular cutters or seamstresses are constantly, but unwittingly, infecting the clothing we purchase from them, the bargain counters in some of our large department stores, the "cheap john" clothing stores, the unsanitary confectionery and grocery stores, ice cream saloons, common restaurants, fruit stands and stores, moving picture and vaudeville play-houses, waiting-rooms and toilets in railroad stations and other public places, state-rooms in steamships, and berths in Pullman sleepers. There are set free in the United States every year one hundred thousand prisoners from our jails and penitentiaries. Over 25% of these have some form of tuberculosis, and are allowed to roam the country, spreading the infection as they go. When we consider a company of 25,000 advance agents from this one source spreading this deadly infection over our country should we not appeal to our national government for help?

These and thousands of other sources that could be mentioned in the same category, are the homes and common dwelling places of the tubercle bacilli. They are carried to these places by the victims of tuberculosis and the common house fly. The infection, when once housed in a locality where the soil is favorable, is very hard to exterminate. The way by which this infection is spread and taken into the system, is by the sputum of persons who have tuberculosis. This sputum, after drying on the floor, side-walk or street, is taken up as dust by a draught of air, or gust of wind and sent on its deadly mission, to be inhaled by any passer-by, and if lodged in suitable soil of the mouth, nose, throat or lungs, in the course of a few weeks or months these victims go out on the same mission spreading the same infection, as well as adding recruits to that great army of millions who have gone before to that bourne, whence no traveller returns.

Having merely touched upon the chief points of this mammoth subject giving some of the leading characteristics that should claim the attention of the medical profession in the fight that is now being made, I shall conclude my paper by offering a few suggestions along the lines of prevention and extermination of this world-wide scourge that is now challenging the skill of the whole medical profession. One of the strongest and most important preventive measures against pulmonary tuberculosis, is the careful management of the children of tuberculous parents and grand-parents. There is beyond all question, a predisposition to this disease in such children; also in adults who are the offspring of tuberculous parents of grand parents. The constitutions and general welfare of this class should excite the interest of not only the immediate relatives and friends, but of the family physician as well. While I do not believe that the disease itself is hereditary, yet I am fully convinced that there is a strong hereditary tendency.

When this tendency exists with marked anemic conditions, low vitality and slight cough or constant clearing of the throat, dyspeptic symtoms, loss of appetite, tired feeling, slight evening fevers, etc., etc., there is good ground for suspicion of beginning tuberculosis. Where there is much doubt and anxiety on the part of friends and relatives, it might be well to use the tuberculin test. If a positive result is found, this class of patients should take a course of building-up treatment until all the worst symptoms are cleared up, then advise a climate of pure, dry atmosphere in a high altitude, where such persons can spend the rest of their lives in ease and comfort, following their ordinary avocations. This is the proper climate for all persons who have an inherited predisposition to pulmonary tuberculosis. One other important preventive measure should be inaugurated in every country throughout the world. I refer to the prevention of marriage of all those who have pulmonary tuberculosis. While such a law, if inaugurated, might at first seem radical, yet it would prove a step in the right direction toward eradicating the disease and saving future generations from the blight of this curse. It is a well known fact that the

married state hastens the progress as well as the spread of the disease. If we wish to be sure of success in our fight, we must use some strategy and diplomacy in searching out and capturing the victims who are the advance agents in the spread of this deadly infection. These should be caught if possible while in the incipient stage and placed in sanatoriums where they can be treated scientifically until cured. Eighty per cent of all cases in this stage, who have fairly good constitutions, can be cured. In the other more advanced stages of the disease, the victims should not only be captured, but quarantined under the same restrictions that govern other contagious diseases, such as scarlet fever, diphtheria, etc , none of which is comparable in death-spreading qualities to pulmonary tuberculosis. The question naturally arises, can these plans be carried into effect? Have we a right to curtail the privileges and rights of our fellow-man along these lines? And is it humane to thus cut off from the social world, those unfortunate people of our own woof and blood? These are the greatest as well as most far-reaching questions to answer in lining up our forces for the battle that is now approaching.

As previously mentioned, without a full supply of strategy and diplomacy, these plans cannot become effective, notwithstanding all the combined forces of the medical profession, backed by the governments of the respective nations of the entire world. The three most important essentials in this fight are education, means and diplomacy. Education is necessary for the victims of the disease, for the general public, and for those who are expected to do the fighting. Educate the consumptive by telling him first of his real condition, and then teach him to co-operate in arresting his disease and preventing the spread of his infection to his fellow-man. Teach him the laws of self-preservation, habits of cleanliness, personal hygiene, and how to avoid taking cold, and to live an out-of-door in suitable weather, both day and night, wearing suitable apparel for body warmth, to take tepid and friction baths, to regulate a diet that will sustain and nourish all the organs of the body, and to keep the secretions and excretions in as normal a condition as possible, avoiding all things and influences of a deleterious or depressing character, and seeking those influences that are elevating and of a cheerful nature, administering only such medicines as are indicated by the symptoms of each individual case. We have in Guaiocol and Iodine, with their respective derivatives, two of the best medicines for the treatment of this disease, that have yet been discovered. When properly compounded they can be administered *internally*, *externally*, as well as by *forced inhalation*. With these two germicidal weapons and a bounteous supply of *pure*, *fresh air* and *wholesome* food, any ordinary case in the incipient stage should be arrested within twelve weeks. Teach him the use of the thermometer, that he may keep a record of his most important symptoms, reporting same at regular intervals, and to avoid taking active exercise when his temperature is at or above 100°.

In short, give him a full set of specific rules and regulations in type-written form to follow, and instruct him to impart these to his friends and acquaintances who may be victims of the same disease. We should also educate the immediate relatives and friends of the patient, as well as the general public, along the lines of hygieue and sanitation. The starting place toward educating the masses is in the public schools. One week in every three months should be devoted exclusively to the study of hygiene and sanitation, in adPition to these studies in the regular curriculum, requiring each teacher to prepare a special course to be taught to all the pupils, both small and large, during these special weeks. The teachers should also require the pupils to recite to their parents the same lessons on hygiene and sanitation that they recite to them, and in this way educate parents as well as children on these important subjects, preparing them as if for a "*thirty years war*." The play grounds should be carefully selected and the importance of open air exercise impressed upon each pupil of the school. These principles should also be taught from the rostrum and the pulpit by men fitted for this purpose. Education as previously mentioned is only one of the main essentials toward the prevention and extermination of this dread disease. The next important essential is the *means* by which to establish sanatoria for the three classes of patients who are victims of this disease in its three respective stages. There should be in each county or city of 50,000 inhabitants, three sanatoria: one for those who have tuberculosis in the incipient stage, and are curable; one for those who have the disease in the second stage with a possible chance of arresting it, and one for the third or incurable stage.

Where it is feasible, several counties or cities might combine funds and establish these sanatoria under a joint corporation. These sanatoria should be established by the state governments, assisted by the national governments, *hence the importance of legislation!* Let the medical profession a-

a unit work to this end and it will be only a matter of time when the laity will fall in ine and thus assist in taking the matter up with our law-makers.

To accomplish all this it will be necessary o use a large amount of diplomacy. The best talent, tact, and influence should be brought to bear upon the laity, the law-nakers, the public benefactors and the *wealthy consumptives* of this country. This alter class may not be disposed to give up heir individual rights and privileges for ne mere sake of humanity by condescend-ng to live in a public sanatorium, yet if the proper influences are brought to bear upon his class, and with some diplomacy, we nay not only conquer them along the line of submission to certain rules and regula-ions of the open-air sanatorium, but we nay, by conciliation, induce them to give part of their means toward the equipment nd endowment of these *humane* institu-ions.

In this connection I would suggest that special committee of two well known nembers of this Society be appoint-d from each county in the State, o act in conjunction with our legisla-ve committee, in bringing the mat-er of establishing county sanatoria before ach of our county Legislato.s, State Sena-ors, Governor Swanson and some of our ealthy public benefactors, reporting the esults of their efforts at the next meeting this Society.

Sexual Hygiene.

y H. C. Buck, M. D., Friars Point, Mississippi.

I am not sure I have chosen the proper tle for this paper, but Webster tells us, ygiene means "a system of principles or ules designated for the preservation of ealth." We might add moral, mental nd physical, accepting this as the strict finition of the word. I feel that I am not r wrong in my selection of a title. Man as ever been slow to accept or adopt new octrines or theories; in the dim past men fused to accept the truth that the earth or e world as it is called was a globe and re-lved on its axis, but finally some sage nd philosopher boldly asserted "the world move," and from then on mankind ac-pted the truth. The world moves and ankind moves with it; we live in an age progress; "onward and upward" is a gan of the present era. Until within the st few years the question of sex and the scussion of the sexual natures of men and omen was looked upon as being if not im-oral, at least indelicate and immodest; nce never discussed, but to one that notes e trend of human affairs and the spirit of form and advancement that is gaining ground each day, it is very gratifying to note that the education of the boy and girl, not only morally and mentally, but sexu-ally is occupying the attention of very many prominent members of the medical profes-sion, as well as that of moral and christian men and women in other walks of life. The question that confronts us today, the scope and gravity of which can not be esti-mated, one that should and must appeal to us as physicians, is, Shall the boys be taught the nature and functions of their sexual organs and the moral restraints nec-essary to a pure life by parents or guard-ians, or shall they be left as heretofore, to grow up in ignorance of these matters, or, if knowledge is obtained, get it from vicious sources and surroundings that are but too often the first step in a life of shame and misery.

A writer of ancient history says, "In ancient Germany boys and girls bathed to-gether, naked, even when fifteen years of age, and were not ashamed." Such a state of affairs shows a woeful lack of modesty, and certainly is not desirable, nor indeed at all advisable for "Young America" as is evidenced to all who read.

A writer says "innocence and ignorance in regard to vice is no safeguard to a young man or woman in this age, when it is so evident on every hand, and no fond parent need flatter himself that his pure girl or boy will not sooner or later become subject to improper conversation and influences."

In an article by Dr. Wm. Lee Howard, of Baltimore, he says: "As puberty silently and insidiously arouses the girl to intro-spection, as vague and sometimes uncon-trollable sexual desires force her along a trail of automatic queries, she seeks in vain for truths which she scarce dares own to herself that she was conscious of or under-stood, innocent of any wrong feeling, her soft, sweet and womanly emotions are ig-nored by her mother, her teacher and her married sisters, and either through harmful floundering in her development, or more often through the harmful tales of a sexual neurotic, she learns that every living man and beast is the product of sexual gratifica-tion. This knowledge coming to her through muddy and contaminated channels cannot but defile her thoughts, and she goes out into the world without realizing the great truth that sexual gratification is not sensual gratification."

The question has been asked: "Does not knowledge of the nature and functions of the sexual organs tend toward making a girl less modest, or is not such knowledge a shock to her modesty?" I contend this depends wholly upon the source of such knowledge and the manner in which it is

obtained. A writer on this subject said a mother told him that when her daughter asked her questions she answered them in the spirit that such instruction should be given. He says: "This girl after receiving a straightforward answer from her mother, kissed her and said 'Mother, I am part of you.'" Who can say that this girl was injured by this knowledge obtained from such a source? Did not this mother, in thus instructing her daughter, erect around her a "stone wall" of protection; for what lessons or impressions are more beneficial or more lasting to man or woman than are those received from mother? The very word "mother" seems to carry a halo of love and protection. Again Dr. Howard says, "There are thousands of girls in the upper and middle classes who, while not innocent, are ignorant of the primal laws of nature, many have tried to get the information their adolescent longings crave, many have tried to seek out the mystery after having been snubbed or denied by their mothers. If the opportune moment arrives, and it generally does, the girl falls into the selacious seductiveness of some vicious minded woman, the seeds of false sexual education are sown and their spumy growth forever crowds out the tender tie between mother and daughter, and as the mother dissembled, so will the daughter lie."

That the maternal instinct or feeling of motherhood is a natural attribute of a girl and is born in them is evidenced by the care and maternal love the little mother bestows on her doll. Why should not this feeling be explained to the girl when of proper age, and she be taught the beauty and grave responsibility of motherhood while she is at the same time impressed with the beauty and grave importance of virtue and chastity, as well as instructed and warned regarding the misery and shame of those who lose these beautiful characteristics? The question very naturally presents itself: How shall we teach these things? I think this should be left, in a great measure, to the judgment and tact of each individual; but this I will say: Don't snub or evade your son or daughter when they come to you for information. Gain and hold their confidence, and remember life is new to them, and their young minds are busy with the problems that are daily presented, to use slang, "they are from Missouri, and must be shown," and it is far better for you to teach them than for them to go elsewhere for information, which they will surely do if refused by you.

Again I quote from Dr. Howard, who says, "The truth as we know it should be instilled into the mind of every girl. I should commence when they are very young by teaching them the beautiful laws and arrangements of nature in the reproduction of plants and flowers, emphasizing the sex differentiation. Gradually, as she mentally develops, she should be led along nature's paths up to the reproduction of birds, then animals, explaining their mating habits and the season therefor. When nature was giving the girl the first early signs of her own reproductive powers she should have the whole truth plainly told her. Now the girl will see the beauty, the wonderful, the ethical side of normal sexual feeling and sensual sensations will be suppressed. She will seek for no mysteries to dream about, have no morbid curiosity to lead her to experiment, but be in the normal condition of a healthy woman who knows and will be master of natural passions until the time of mating comes."

So far I have devoted my attention to the girls and nearly all writers on the subject that I have read do the same thing. This is right to some extent, for upon the woman rests the sacredness of the home, of morals of christianity. A woman—a womanly woman—I admire and respect above all things on earth. It seems to me that when the great Creator was creating the earth and the fullness thereof He saved the best of all His materials, and of this He made woman. In an article I read recently is this thought, which I most cordially endorse. The writer says, "The agitation in favor of woman's "rights" is, in reality, a movement to dethrone a queen, a truly good womanly woman is the one adorable thing in all the world. As a woman, she is a living textbook of moral education for man; as a wife, she dignifies and makes human and holy what man shares with the brute; as a mother, she reigns supreme, for the hand that rocks the cradle wields the destinies of generations and ages."

But what about our boys? We must remember the cradle just as often contains a little man as a little woman, and he is just as deserving of our care, is just as important in his sphere as is the girl in hers. Too often we hear a mother say: "Oh, Johnny is alright; he is a boy; but I am anxious about Mary." Look after Mary, of course but don't neglect Johnny. It is a sad commentary on the humanity as well as the christianity of our State (Mississippi) that she has no reformatory school and he "convicts" range in age from fifteen years to ripe old age. In an article in one of our newspapers commenting on this state of affairs I found this thought: "Youth and criminality are as far apart as the poles, in the formative period of juvenility there may be the elements of either criminality or of

nobility. The environment, the development must make a man the vessel of its potters clay." Truly "as the twig is bent so will grow the tree." The same lessons you give the girl will, in a certain sense, apply to the boy, except those lessons should be given by the father. Make a "chum" of your boy, gain his confidence, make him feel you are his best friend, and encourage him to come to you with all troubles, real or imaginary; then teach him morally and sexually and impress upon him that what is morally wrong for his sister is just as wrong for him; that he should be a chaste and virtuous man, as she should be the same kind of woman. Some may say, then we will have a race of "sissies." Not so, your boy can become a manly man without being a moral wreck. Right here I want to endorse a sentiment expressed by Dr. Howard in an article condemning mixed schools and sending boys to female school teachers, more especially after the boy reaches the age of fourteen. Dr. Howard claims that such teachers feminate the boy, and I am of the opinion that such a course will come far nearer creating a race of "sissies" than the one I have mentioned. Teach your boy manly sports; let him fight if he wants to, and even if he should "cuss" a little it will do him no great harm, but impress upon him that his mother is a woman, and for her sake, if no other, he should honor and respect all women.

I have no patience with the idea a great many physicians and laymen entertain that a boy or man must indulge in sexual relations to prove or assert his manhood. We can just as reasonably say a girl or woman should do the same to prove or assert her womanhood. In a paper on this subject by Dr. C. H. Cook, of Natick, Mass., among many other things found in the paper, he says, "Whenever a man consults him and makes that claim he tells him that if the sexual relation is necessary to health or physiologically necessary, it cannot be morally wrong; neither can it be wrong for the woman who ministers to the need." He said further, "that granting, for the sake of illustration or argument, that such relation is necessary to health, God Almighty did not make anything that was necessary and at the same time morally wrong; neither did the Almighty make anything that was physiologically necessary for a man, and therefore not morally wrong, and at the same time wrong for the woman who ministers to that need. Although men claim liberty for themselves, Dr. Cook said, he has yet to meet the man who will grant that liberty to his wife, his daughter, or his sister."

As I said before, life is new to the girl and boy and they are diligently seeking knowledge. I am reminded of the little boy who was told the "stork" had brought him a little sister. When asked if he wanted to see his sister, he said: "No, but I would like to see the stork." The sister was no mystery to this "young American," but the stork or from whence she came was one she wanted to solve. It is an old but trite saying that first impressions are the most lasting, hence it is of grave importance to watch the young and try and keep away from them all wrong impressions or ideas. It seems to me the question of the moral and sexual education of our children is one that should appeal with especial force to those of us who live in the South, physician as well as layman, for we are wholly dependent upon the negro for our servants and for nurses for our children. We know that very nearly, or quite, all of these negroes are absolutely void of virtue or morals, yet very many parents trust their little ones to the care of these negroes, often allowing them to go to their homes, where they are exposed to all kinds of disease germs, both physical and moral, and too often their pure souls are contaminated and receive stains that hardly a life time of love and care on your part can overcome and that you can never entirely efface.

A writer says, "To leave a child to find out his or her sexual nature unaided is the gravest and most cruel mistake."

Examination and Diagnosis of Diseases of the Anus and Rectum*

By E. H. Terrell, M. D., Richmond, Va., Instructor in Principles of Surgery, Medical College of Virginia; Junior Visiting Surgeon, Memorial Hospital.

It has been said that it is the careful doctor who examines his patient's rectum, for there is probably no part of the human anatomy that has been more neglected by the average practitioner. There is apparently no good reason for this, unless it be that our medical schools have not given sufficieutly careful instruction in methods of examination and diagnosis of rectual diseases; or, unless we have been indifferent because of a certain repugnance by both patient and physician to rectal examinations. When we note the frequent occurrence of anorectal disease (there is no part of the body so often affected) at all ages and in every station in life and see the consequences of such cases when overlooked, we wonder that more attention has not been paid to these troubles.

When neglected, the simplest of rectal

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diseases often has a tendency to assume serious proportions and result in destruction of tissue and loss of function of the parts, or may in some instances become malignant. There is no portion of the body to which this applies more forcibly than to the rectum.

Medicine and surgery have undergone a very complete revolution during the last decade or so; old slip-shod methods and guess work will do no longer, for the patients expect and demand more than a casual glance and the asking of a few questions. It is not uncommon even now for a patient suffering from some rectal trouble to call to see the doctor and inform him that he wishes treatment for his piles; for the patient often has no conception of other diseases of these parts, and the physician, after asking a few unimportant questions, will write a prescription for some ointment to be applied as directed. The patient may or may not have piles—the ointment may possibly do good, but most probably will not; but, at any rate, you will admit that the patient has not received a square deal. He is most assuredly entitled to a careful and painstaking examination to elicit, if possible, the true nature of his malady.

A correct diagnosis having been made and the proper treatment given, good results will be gotten in the great majority of cases. Without the proper examination, it is fallacy to hope for betterment except by mere chance.

Diseases of the anus and rectum often progress very rapidly, and the delay of a few days in receiving the proper treatment may convert the simplest trouble into one of very great magnitude, thereby causing the patient a great deal of suffering, loss of time, expense and probably endangering his life. As an example, take a case of thrombotic hemorrhoids, which is one of the simplest of conditions to treat and can be cured in three or four days, but which, not infrequently, if left alone, results in fistula or perirectal abscess, often taking weeks or months of careful attention to effect a cure. Again, as in other portions of the body, it is most important that an early diagnosis of malignant disease of the rectum and anus should be made, for it is only in the early stages that we can expect to eradicate cancer.

With a little experience, an examination of the rectum and sigmoid is made quite as easily and as satisfactorily as an examination of the vagina, and should be made quite as much of a routine. If we made more frequent rectal examinations, the diagnosis of a great many of the obscure pelvic lesions would be cleared up; for it is not rare for diseases of the rectum to be mistaken for vesical, urethral, prostatic, vaginal or uterine affections.

To begin with, when a patient presents himself for treatment, the history of the case should be carefully taken, allowing the patient to tell his story in his own words. While this may be a little tiresome to the physician, still, if he has been an attentive listener, it will have the effect of putting the patient somewhat at his ease and will engender in him more confidence in the physician. While this appears in itself of little consequence, it often means a great deal, for if the patient is unduly excited, embarrassed, or lacks confidence in the physician, the examination to follow will hardly be successful.

Age, vocation, habits, mode of living, previous diseases, present symptoms and how long present should all be gotten and recorded, and if deemed necessary, his ancestry should be inquired into, though heredity is of very little importance in rectal diseases. It is very important in prescribing a diet and the amount and kind of exercise a patient should take (which is necessary in rectal diseases), that we should have a clear idea of his present habits in these respects, for it would hardly be to our credit to advise more exercise for a professional acrobat or foot-ball player, or to inform him that he was eating too much meat when he might be a vegetarian. Just very recently, a lady told me that she had changed doctors because when she asked the former physician the cause of her child's sickness, he stated that it was due to drinking too much milk, when the fact was that the child had a great dislike for milk and had not drunk a glass of it for a year. Such little mistakes have caused many a doctor the loss of a patient; but they would not happen if we enquired a little more closely into their regimen.

The Sims' or left lateral is the best all around position for the physical examination; still others, as the knee-chest or lithotomy positions may, at times, be preferable. We should first carefully inspect the anal region, noting the shape and size of the orifice, color of the skin, whether unduly dry or moist, any ulceration, fissure or fistulous opening, external, protruding or internal hemorrhoids, polypi, etc. By having the patient strain, at the same time pulling the buttocks well apart, we can gain a fair view of the lower part of the anal canal.

By palpation, any tender points, fistulous tracts or fluctuation indicating abscess may be made out. Digital examination is one of the most valuable means of diagnosis of disease in the first three or four inches of the rectum and should always precede the instrumental examination. The finger,

covered by a rubber cot, should be well lubricated and first passed upward and forward until the spinctures are passed, then upward and backward. While the finger is passing through, note the condition of the sphicters. If there is a twitching, tender muscle, it indicates an acute trouble near the margin; if it is hard and firm, it indicates a chronic condition; if relaxed, you would expect some malignant or exhausting disease.

Between the spicters we must look out for openings of fistulas, fluctuations, foreign bodies, etc. Further on, we note whether the membrane has its normal folds or whether it is smoothed out—the latter indicating stony—whether the mucous membrane is soft and pliable or harsh and dry showing insufficient secretion. Polypi, carcinoma, stricture and ulceration may be felt if present, and their nature determined by the sense or touch if the finger tip be sufficiently educated. One can scarcely hope to be a successful proctologist until he is able, to some extent, to recognize what he feels.

While the finger is in the rectum, the coccyx should be grasped to see if there is tenderness or inflammation there. The prostate in man, ovaries, tubes and uterus in the female should be palpated to ascertain if these be enlarged, inflammed or ab normally situated. Often, diseases of these organs have their symptoms referred to the region of the rectum and vice versa. If gynecologists would supplement their vaginal by a rectal examination, much additional information would often be gained, and probably occasionally assist materially in making a correct diagnosis. Upon withdrawal of the finger, the character of the discharge, blood, pus or mucus should be noted, and also, the odor.

An instrumental examination is necessary when we wish to explore higher than three or four inches of the rectum. The general impression that this is extremely painful and that a general anesthetic is necessary is entirely fallacious, for with proper care and gentleness there is usually very little pain, but more the sensation of discomfort.

Before passing the speculum or proctoscope, the finger should always be gently passed into the rectum for the double purpose of lubricating the canal and stretching, to some extent, the muscle. Another and important purpose is to be sure of no obstruction to the passage of the instrument. The knee chest position is probably the best for instrumental examination, getting the chest as close as possible to the table, the thighs perpendicular to it and flexing the back to the fullest extent before beginning.

There are various specula on the market, but for most purposes there is none better or easier of introduction than an ordinary small or medium sized Sims' vaginal speculum.

The speculum or proctoscope should first be thoroughly lubricated and introduced by a firm but gentle pressure against the sphincter, giving sufficient time for relaxation of the muscle. In passing through the anal canal, the instrument is held at an angle of 45 degress to the table or on a line with the patient's body while in the knee-chest position. After passing the sphincter, the tube is lowered until it is parallel with the line of the table. If the proctoscope is being used. the obturator is now removed, when air will rush in and inflate the canal so that the tube may be further guided to the desired height; the parts inspected and applications of the necessary remedies made by means of dressing forceps or applicators.

By this means the whole of the rectum may be very easily examined; and by the use of the longer tube or sigmoidoscope, the whole of the sigmoid or, as claimed by some, the lowest extremity of the descending colon may be inspected. This high examination should only be attempted by one having had some experienee in the use of these instruments, and is best done then with a specialty devised pneumatic scope with an electric light attachment with which the bowel is dilated just ahead of the instrument. The small electric light at the distal end makes the passage of the instrument much easier and decreases the danger of injury to the mucous membrane.

304 East Grace Street.

Mercuric Cataphoresis versus Radiotherapy and Excision in the Treatment of Cancer.

By Amedee Granger, M. D., New Orleans, La., Lecturer on Radialogy and Electro-Physics, N. O. Polyclinic; Radiologist to the Charity Hospital; Member Societe Francsise d'Electrotherapie, Paris, etc.

It has been my good fortune for the past four years to have charge of the X-Ray and Electro-Therapeutic Department of the Charity Hospital at New Orleans, and I have been afforded a splendid opportunity to study this unfortunate and only too common affliction. There I have seen not only the failures of the X-Rays but also of surgery. A large percentage of the cases referred to the Department for X-Ray treatment are patients suffering from recurrence following excision—which in most instances was radical and thorough. These poor unfortunates now inoperable by any method are sent to the Department in the hope that the X-Rays might help them. In a few

very rare cases of this kind cures have been reported from the use of the X-rays, but all we can hope for, all I have ever seen these rays do, is to relieve pain, and for a time improve the local and general condition of these patients. This improvement is not seen in every case, and when it does take place it is usually of short duration. Even when the exposures to the X-rays were begun, recurrences took place in from three to twelve months.

I do not mean to criticise the work of the operators, quite the contrary for I know them to be men of ability who get good results in other operative fields, but in this instance it is my firm conviction that they attempted to cure by excision a disease which is not amenable to such treatment. This view is based on the fact that I am for over four years a firm believer in the parasitic or infectious nature of cancer, and, therefore, I can't hardly see how a cancerous growth can be excised without generalizing the disease through the opened lymph spaces, and without implanting the disease in the freshly cut wound edges, and cause local recurrences. Our observation bears these statements. The improved technique and extensive surgical operations performed in the last few years, have not materially improved the results obtained in these cases. That this is recognized by the surgeons themselves is I believe fully proven by their readiness to try other methods of treatment in these cases, viz: injections of mixed toxins, the X-rays, serum injections of boiling water and lastly a method termed "fulguration".

Of course, some cases have been cured by incision, and in these cases the favorable results was undoubtedly due to the fact that the incision was made beyond the infected area, the knife at no time cutting into the latter, and no infected cells or blood from it coming in contact with the fresh wound.

In nearly every case of recurrence this takes place on the site of the scar resulting from the excision. The more thoroughly this has been done, the less favorable are the chances of success from a second incision or any other method of treatment. When the disease recurs after a radical operation with removal of all the glands draining the affected part, it is usually associated or quickly followed by a general metastasis.

Should we not heed this significant warning from the pathologist never to cut into a cancerous growth even to remove a section for microscopical findings unless we are prepared to operate in event that the microscope shows the specimen to be malignant, because the mere incision into a growth of this type no matter how small might and often does mean the spreading of the disease into the lymph or blood vessels.

As already stated I have studied closely the results from the X-Ray treatment and I have been greatly disappointed. I have seen no permanent cures except in skin growths and these mostly of the rodent ulcer type. In other growths I have not seldom noted improvement but this was only temporary. I know that several operators have reported *cures* in inoperable cases of cancer. I have not been so fortunate and in all frankness I must admit that I have often met with failures in cases when I thought the X-Rays specially indicated and confidently expected good results. My technique might be faulty, as I have always insisted on the avoidance of X-Ray burns and by so doing failed to produce the degree of skin reaction which so many operators deem necessary to obtain satisfactory results. That numbers of cures—probably the majority of cures—have followed a moderate or severe X-Ray burn there is abundant proof. But an X-Ray burn is an evidence of the destructive effect of the X-Rays, and I believe that the latter should be used to produce retrogression of the growth and not to destroy it. If this is the object desired than Mercuric Cataphoresis will accomplish it more quickly without any danger of serious consequences. The healing will be simpler, the scar will not be so fragile, and recurrence much less frequent than after an X-Ray burn.

The changes which are brought about in carcinoma either in man or in animals, by exposing them to the activities of the X-Ray or of radium, have been shown by Exner, Perthes, and others in man, and by Apolaut and Embden and Bashford in mice, to present exactly the same histological picture as that which is presented in tumors undergoing spontaneous retrogression. This fact has been under observation for over a year in Buffalo. A section of tumor retrograding under the activity of the X-Ray or of radium is in no way distinguishable from one taken from a tumor undergoing spontaneous retrogression or retrogression induced by serum treatment. Examination of the blood of mice which have recovered from tumors through the activity of the X-Rays shows that this fluid does not contain any acquired immune factor. If however in the course of treatment a mouse is heavily bled, the tumor will frequently begin to grow—a phenomenon which leads to the conclusion that the X Ray does not act directly upon the tumor, but through such immune factors as the mouse still possesses. For this reason it would appear that the X-Ray and the radium reduce the virulence

of the tumor or so injure the x factor that the natural immunity brings about the retrogression of the tumor. In this way it is possible to explain those tumors which are not affected by the X Ray, and also the fact—which has been frequently observed—that tumors which are being favorably affected suddenly begin to grow in spite of continued treatment.

In support of the parasitic or infectious nature of cancer, the following arguments have been adduced from the modern research into cancer:

(1) An analogy exists between certain change in th epithelium in cancer and those occurring in the epithelium in certain of the acute exanthemata notably variola and sheep pox, known infectious diseases. (Gaylord).

(2) Tumors in mice are almost never found alone. In breeding establishments, where one case appears it is always accompanied by others. Healthy mice, brought in contact with mice with primary tumors, acquire the same. (Burrel).

(3) The appearance of sarcoma of a rat in a cage which had contained rats inoculated with sarcoma points to the possibility of cage infection in this form of cancer. (Gaylord)?

(4) A gradual transformation of normal epithelial cells into cancer cells occurs at the margins of primary cancers. (Orth).

(5) The transformation of an adenosarcoma into a sarcoma (Ehrlich) is most easily explained by assuming the transference of an infective factor from the epithelium into the connective tissue of the stroma.

(6). The epithelial cells of the deeper layers of warts, after successful treatment with the X-Ray, no longer proliferate to form a new wart, but reproduce normal skin (Perthes), showing that the stimulus to proliferation has been removed, and that there remains epithelial cells capable of normal proliferating function.

(7) The unknown factor in cancer is apparently added to normal epithelium from which it can be removed leaving normal epithelium. Through the proliferations of the cells of the cancer, which increase enormously this factor (i. e. infective agent) must of necessity gradually increase in amount. The increase in bulk, through transplantation in mouse tumors, is associated with increased virulence. The only known agent which can fulfill these conditions is a living organism. The unknown factor may be an ultra-microscopic organism, or one that is simply undemonstrable. Filtration experiments in infectious diseases of unknown origin or etiology are not competent to throw any light on this phase of the subject. (Gaylord).

(8) The conclusive experiments of cancer of the uterus by Cullen demonstrate that the disease is auto-infectious.

(9) The existence in most large cities of cancer houses, i. e. houses in which successive occupants have developed the disease. These observations are becoming too frequent now for it to be possible to explain all such instances by the excuse of a mere coincidence.

The ideal treatment for cancer, therefore, would be to destroy the infected and pathological cells and the germs or parasites not only in the growth, but also those which have migrated beyond into the apparently healthy surrounding tissues, without opening up any lymph spaces or other avenues of infection. This I believe can be best accomplished by Mercuric Cataphoresis, a method which consists in driving into the diseased tissues by electrical action the liberated ions of zinc and mercury—both powerful antiseptics and germicides.

A careful study of this method and my observations and the results in the treatment of 24 cases of cancer with it, formed the subject of a communication which I presented to the American Electro-Therapeutic Association at its meeting in New York in September 1905. The paper was summarized in the following conclusions, viz:

(1) We have in Mercuric Cataphoresis, a means of destroying not only the malignant growth, but the proliferations into the apparently healthy tissue, rendering the latter sterile and stimulating its healthy cells to greater physiological activity. This last and most important action is due to the selective action of the current, which forces the diffused chemicals along the paths of cancer proliferation, because these have greater conductivity than the normal tissues. Besides a true selective action also results from the fact that cancer cells succumb more quickly to the diffused chemicals than normal cells.

(2) It is incapable of producing an autoinfection of the edges of the destroyed area, because no infected cell or germ can exist within the effective radius of its energy.

(3) The bloodless character of the applications, even in situations where the vascularity is great, and the toxic and stimulating effects of the current more than counteract the depressing and untoward effects in old patients, and in any patients, when the size of the growth requires prolonged application. After the applications the patients make rapid recoveries, because they have not been weakened by the loss of blood attending the use of the knife or curette.

(4) Although we have used the method on most unfavorable cases, and taken desperate chances, we had only one death during the application and we are convinced that in this particular case the method was not responsible for the fatal result.

(5) As a cure or palliative in growths within the mouth it has proven of inestimable value, especially so on account of the inadequacy of the other methods of treatment. We were able to harmlessly and easily transmit the cataphoric products to the site of the application by means of an electrode of small caliber and special design, so insulated as to absolutely protect the healthy parts of the cavity, and yet capable of definite and controllable diffusion from the uncovered point of electrode.

(6) In the cured cases, the cosmetic results were excellent; the resulting scars are much smaller than would at first have been expected from the extent of the wounds after the separation of the sloughs. They are soft, pliable, smooth and with practically no degree of retraction.

(7) Lastly, we are convinced, as a result of our experience in these cases, that although we can expect some improvement and occasional cures from this method in inoperable cases, that it should not be reserved for such cases, but be used in operative cases as early as possible, and before the local disease becomes general, if we wish to obtain a large percentage of permanent cures. And we further believe that such a result can be confidently expected.

Chronic Alcoholism.

By Geo. B. Simpson, M. D., Parkersburg, W. Va.

A gentleman recently applied to me for treatment, telling me that he feared he was about to lose his reason. On several occasions, without any known cause, he suddenly felt profound depression with a bewilderment and dread so profound and strong as to incapacitate him for any exertion or amusement. After twenty-four to thirty-six hours it would pass away. The only treatment he received was vigorous cathartics, which he took on his own prescriptions, thinking that possibly sluggishness of the liver might be the cause. This man was a tall, powerful individual, about forty-five years of age, in excellent health; and while his occupation is sedentery, he takes a great deal of exercise. He has no business worries, his family relations are ideal. His financial affairs could not be in better shape.

A most careful examination failed to show fecal impaction. The liver is slightly enlarged. Further investigation showed that for the past two years this gentleman, who had previously been perfectly abstemious, had gotten in the habit of taking about a half pint of whisky every evening; several of his friends congregating at his house to play cards, imbibing a generous quantity of whisky during the evening. In no other particular had the use of whisky appeared to create disease or embarrassment.

Evidently something more than a simple prescription was here indicated. The cause was explained to him with the advise that he should instantly stop all alcoholic beverages. This he asserted would cause very little discomfort, since he had no desire for the liquor, and only took it "because the rest did", and to enhance the pleasure of the evening. I directed him to take the pure alkaloid emetine, in a single dose to be taken just after he had gotten into bed, beginning with a milligram and increasing the dose until evidences of full action were manifested in slight nausea. When this occurred he was to lessen the dose and keep close to the point of nausea without touching it, and to continue the remedy nightly until further direction.

He was also given a supply of cicutine hydrobromide, a milligram in each granule. This is one of those highly specialized weapons which modern science has provided us. Among the many the uses to which this agent can be put, Dr. Waugh has especially called attention to its value when a person feels the dread of approaching insanity, Whatever may be the pathologic conditions which underly this special sensation, cicutine hydrobromide gives relief. One granule containing a milligram should be taken every two hours until this special sensation disappears.

A third attack occurred a few days after the patient applied to me, but four of the granules succeeded in dissipating it completely. After that, as the action of the emetine upon the liver and the various digestive secretions became manifest, no further difficulty has experienced.

However, this was only the preliminary treatment. A careful examination into the circumstances convinced me that the true trouble was that the gentleman had not sufficiently hard or engrossing occupation for an exceedingly powerful and active intellect. His work stopped at 3 p. m., beginning at 9 a. m., and while it would have been a severe task for a man of ordinary intelligence, it was not sufficient to fully occupy his powers. During the summer his afternoons and evenings were spent at golf and tennis, but during the long winter these pastimes failed him, and cards and billards were the only resort. After examining the matter thoroughly, I concluded it would be wise for him to undertake some business interest of sufficient magnitude to fully en-

gross all his powers, and one which especially involved the employment of a number of men, whose direction would be under his immediate personal control.

Plans are now being made for fulfilling this need. The case seems notable in these days when so many people are complaining of overwork. Here was a man who was falling into alcoholism because he had not work enough.

During the Civil War it was a common observation that some of the most valuable officers in the field only showed their true worth during the conflict. When the war was over these men quickly degenerated into alcoholism, finding civil life too tame to sufficiently interest them after the excitement of war.

In dealing with an alcohol user there seems to be nothing which so completely fills the physical indications as emetine. The patient takes a full dose at bedtime, goes promptly to sleep, remains sound asleep until morning and gets up fresh, active, ready for his breakfast and his work. The bowels more freely, with bilious stools, and the craving for liquor, if there is any, disappeared. This remedy seems to more completely fulfill the indications for eepatic elimination than any previously employed. By the use of this one remedy I hove repeatedly stopped an attack of pending delirium tremens, which seemed passed beyond the period when it could be successfully averted.

It is necessary, however, to employ chemically pure emetine, since preparations ordinarially known under that title contain enough of the other acrid emetic alkaloid of ipecacuanha to render it impossible for a sufficient dose to be retained on the stomach to properly accomplish the object. This is the more important now, as the Rio ipecacuanha seems to have disappeared from the market, being replaced by the Carthagena variety, which all but the last pharmacopeas proscribed on account of irritating qualities. None of the American supply houses furnishes the pure alkaloid, but a good pharmacist can prepare it from the root or the extract. Unless cephaline is excluded it is difficult to secure full action of this drug on the liver, because the necessary dose will cause vomiting.

Sterilization of Habitual Criminals.

By Chas. V. Carrington, Richmond, Va.

Mr. President and Fellows of the Medical Society of Virginia:

The proposition of the sterilization of habitual criminals, as a prevention of crime, is so new to us, that the novelty of the suggestion will, I hope, engage your thoughtful attention. Then the positive merit of the enforcement of the suggestion, by law, will I think, so appeal to you all, that in the near future I will have your assistance, individually and collectively, as the Medical Society of Virginia, when I endeavor to secure the passage of a law by our next Legislature that will require the sterilization of certain classes of our criminals. I have the rough draft of such a law now, but it is such a new subject, this sterilization of a man, criminal or otherwise, and is so hedged about with foolish sentiment and ideas of cruel and unusual punishment, that I admit it will be up-hill work to educate the average legislator to the full knowledge that no single measure for the prevention of crime would be more far-reaching in its deterrent effects, first, and preventive effects second, than a law which provided for the sterilization of certain classes of criminals. Stop the breed is the whole proposition.

One of our oldest proverbs is, "An ounce of prevention is worth a pound of cure," and this may be taken as the text for my paper. Prevention is the cry of the age—or to put it better, of the ages.

Jenner, with vaccination, was one of our greatest and earliest preventors of a loathsome disease. We have to-day anti-vaccination societies, made up of the uneducated and hypersensitive cruel and unusual-talkers. And were we to wander into the realms of serum-therapy, with the antitoxine for dyphtheria, tetanus, meningitis, hydrophobia, we could more than take up the time allotted for this paper. The medical mind of this generation, as well as that of previous generations, is centered on the great basic proposition of Prevention.

Four States in the Union—Indiana, Utah, Connecticut and California—have passed laws requiring that certain classes of criminals shall be sterilized. Indiana has had such a law for several years, and has sterilized several hundred. Utah has only very recently passed the sterilization law.

Such a law is bound to come in Virginia. Texas and several other Southern States have earnest and thoughtful men giving their time and efforts to the securing of the passage of a sterilization law for habitual criminals, believing, as I do, that fifteen or twenty years after the enactment and enforcement of such a law our criminal class will be immensely decreased.

About a year ago I read a short paper on the subject of sterilization, before the National Prison Association, then meeting in Richmond. That little paper provoked an immense amount of discussion and correspondence. One dear old lady who has taken a keen interest in prison work for years, and is a deep thinker and good worker,

came to me after the close of my paper and said, "I don't suppose I ought to speak to you on the subject of your paper, but I am old enough to speak my mind, and if all of 'em (meaning habitual criminals) were treated as you recommend, it would do an immense amount of good, and save a lot of crime and meanness;" and the old lady was dead right.

I have been surgeon to the Penitentary for over ten years, a long enough time to see father and then sons come to the prison, and by looking back over the records I learned that the grandfather had also been an inmate. Now this hideous reproduction of criminals, from father to son and to grandson, should be stopped; it is right and proper that it should be, and it will be in time—in a very short time, too, if you doctors of Virginia will awaken to the importance of this proposition as a crime preventer, and tell your representatives in the House and Senate that from a medical and surgical standpoint it is a good measure.

A good doctor has enormous weight in disscussing such a subject with a thinking member of the legislature, and when you sift the whole matter out the talk of cruel and unusual punishment does not amount to anything. I mention this, because this is the single argument I have heard rged against the measure, and such an argument can only have force from a sentimental standpoint.

The criminal has by reason of his acts forfeited the rights of citizenship, and as a further punishment he is sent to the penitentiary at hard labor, &c., and as a still further punishment, if he is a rapist, murderer, burglar, or guilty of arson or train-wrecking, he should be prevented from reproducing his species; that especial breed should be stopped.

I am not discussing here in this paper, what criminals should or should not be sterilized. Of course, a law that provided for sterilization should be most carefully drawn, and only habitual criminals, third termers, and those guilty of heinous and revolting crimes, degenerates, and such like, should come within the purvue of the law.

Sterilization is a very slight operation; you simply resect the vas defereus, and it is generally done with cocaine anaesthesia. A small nick is made through the skin of the scrotum, near the pubes, and after an assistant has forced the vas, with the accompanying vessels in to the line of the cut, pick up the vas with forceps, resect it, tying off each end, then close the wound, one stitch generally suffices, and apply a collodion dressing. Your patient can usually go to work the next day. I have only sterilized four convicts during the time I've been surgeon to the Virginia Penitentiary! The first one has given splendid and convincingly good results from the operation. He was a negro sent to the Penitentiary for murder, with a long sentence. He had only been at the prison a short time when he was adjudged to be insane, and was sent to the Asylum at Petersburg. While there he is said to have killed a fellow inmate, and seriously injured a nurse; later he was returned to the Penitentiary as cured; had a relapse, and was bandied back and forth between the Asylum and the Prison several times, as he became better or worse. Finally he escaped from the Asylum, and when recaptured was returned to the Penitentiary.

Just at that time, the legislature having passed a bill requiring the insane criminals to be kept at the prison, instead of sending them to the asylums.

This poor creature was most dangerously homicidal, and was the wildest, fiercest, most consistent masturbator I have ever seen. I steri ized him. That was six years ago. Improvement with him was reasonably rapid, both physically and mentally, and now he is a sleek, fat, docile, intelligent fellow—a trusty about the yard—cured by sterilization.

The second case was a debased little negro, a degenerate with a vicious record in the reformatory, and a heinous record at the penitentiary, as a masturbator and sodomist. Sterilization about four years ago cured him of his vicious, debasing habits, and he is now a strapping, healthy looking young buck, and when he completes his sentence and leaves, he can not reproduce his species.

The third and fourth cases are of too recent cate since their operation to report exact results; both of them were insane, debilitated masturbators; they had been under observation and treatment for months; finally last month I sterilized them. They are greatly improved already, both mentally and physically, and they will be cured in time.

This is probably the first paper on this subject ever read before this Society. I have wished to make it short and forceful, and I hope the statement of facts will carry conviction to your minds, and make you advocates of a proper sterilization law before our next Legislature.

932 Park Avenue.

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SURGICAL SHOCK.

The importance of surgical shock is so great that its consideration from any viewpoint is worth while. In all probability, as Muhlberg says, surgical shock is allied to the physiological phenomena of inhibition, but differs from the physiological condition in that it involves to a greater or less degree the entire nervous system. Of the important nerve centres in the nervous system, the vasomotor centres take first rank. Hence, in surgical shock it is the vasomotor inhibition which calls most urgently for treatment. In vasomotor collapse it is the arterioles that are principally involved; the heart, probably through its connection with the nervous system, is also implicated, but much less seriously. The heart is an organ that will stand a great many insults and much hard treatment, as those who work on lower animals are aware; but the vasomotor system is exceedingly sensitive and immediately resents any abuse by causing a relaxation of the arterioles throughout the body. In consequence of this, the blood-pressure falls, the pulse weakens or disappears, and unless some heroic method of resuscitation is adopted the patient dies of collapse. The heart continues beating for some time after the arterioles relax, but its contractions are feeble and often irregular. Later on, the heart stops its contractions; but here again the cause lies not so much in the heart as in the falling blood-pressure produced by the relaxed arterioles. When the blood-pressure sinks, blood can no longer be forced into the coronary arteries, and the heart stops in consequence of a lack of oxygen. It is for this reason that the mammalian heart does not beat rhythmically when excised from the body; its removal stops the coronary circulation, and the organ ceases its beating. When defibrinated blood is transfused through the coronary vessels, the mammalian heart can be made to resume its contractions outside the body. It is the vasomotor system, then, rather than the heart, which requires treatment in conditions of collapse. There is also another factor in vasomotor collapse which must not be overlooked. When in consequence of over stimulation or of some poison in the blood, the vasomotor centres give way and the arterioles relax, the circulation in the central nervous system, where vasomotor centres reside, is interfered with. As a result less blood circulates through the brain and the spinal cord, and therefore less blood is carried to the failing vasomotor centres. A vicious circle is established in this way, and eventually the blood pressure sinks to nil, unless in some way this vicious circle can be broken and the vasomotor centres given a chance to recover under an increased blood supply. Strychnine and whiskey act principally by direct stimulation of these centres, and their administration is followed by the desired results, provided the nerve cells are not beyond the capability of reaction. When, however, the nerve cells are powerfully shocked, a direct stimulation apparently depresses rather than stimulates them.

The injection of normal saline solution is more often followed by favorable results, because the liquid, by mechanically filling the blood-vessels, partially compensates for the loss of tone produced by the relaxed arterioles. Atropine by its stimulating effect on the vasomotor centre and peripheral arterioles, its depressing effect on the vagi, is *par excellence* the dependable drug in conditions of shock. According to Takamine, adrenalin, injected into the circulation, causes an enormous rise in blood pressure, due not so much to the stimulation of the vasomotor centres as to the direct stimulation of the heart and arterioles. It produces its effects almost as well on the heart and blood-vessels isolated from the central nervous system as when they are in physiological connection with their nerve centres. It, however, is very evanescent in its action.

TYPHOID FEVER.

As was pointed out by Schottmuller as long ago as 1902, typhoid fever must be regarded as a primary septicæmia. The bacillus has been found in the blood repeatedly by the fourth day of the disease. Kayser cultivated the micro-organism from the blood with his bile medium in 100 per cent. of the twenty-one cases he examined during the first week. Working with the Strassburg typhoid commission, Brion and Kayser had the opportunity to make several examinations during the incubation stage, and in no instance recovered typhoid bacilli from the stools. The typhoid bacilli quickly pass from the blood into the bile. When injected into the ear vein of a rabbit, as has been done on numerous occasions, notably by Pratt, Peabody and Long in the Laboratory of Clinical Pathology at Harvard University, typhoid bacilli were recovered the following day from the gall bladder. Dorr, in fact, obtained typhoid bacilli from the bile in less than eight hours after they had been introduced into the circulation. Pratt, in 1901, reported that the typhoid bacillus was cultivated from the gall bladder in

twenty-one out of thirty cases of typhoid fever that come to autopsy at the Boston City Hospital. It is now almost universally admitted that the micro-organisms become widely disseminated throughout the body. They have been recovered in a single subject at autopsy from the heart's blood, the spleen, the liver, the kidney, a mesenteric lymph node, the gall bladder, the urinary bladder, the right middle ear, and the bone marrow (Pratt). It has been isolated from the urine in a large percentage of all cases examined. Jacobi and Munch report that they found it in 25 per cent. of their cases. Petruschky calculated that in one of his cases each cubic centimetre of urine contained 172,000,000 typhoid bacilli, and Gwynn estimated that 500,000,000 per c.c. were present in a case reported by him. A number of recent investigators have found typhoid bacilli more often in the urine than in the stools. Among ninety-eight convalescents studied by Herbert, only three showed typhoid bacilli in their stools, while they were present in the urine of eighteen. He found they occurred in the urine in large number, in the stools only in small number. The presence of the typhoid bacilli in the rose spots is well known. Richardson, Drigalski, Jehle, and Rau have found it repeatedly in the sputum when bronchitis was associated with the typhoid infection, and Dieudonne even recovered typhoid bacilli from the sputum seven weeks after fever had disappeared. Still more upsetting to our older ideas, however, is the fact that undoubted cases of typhoid fever without intestinal lesions have been reported by such investigators as Opie and Bassett. Jehle observed a case in which there were no characteristic changes in the intestine, and yet the sputum contained typhoid bacilli. Rau isolated *bacillus typhosus* from the sputum when cultures from the stools were negative. Years ago Bumgarten stated that the typhoid ulcers in the intestines should be regarded as metastases rather than as primary lesions, a theory which was revived by Schottmuller in 1902. Later knowledge has shown that in cases of typhoid cholecystitis, in spite of the discharge of enormous numbers of typhoid bacilli into the intestine with the bile, there are no intestinal manifestations. Not only are there no intestinal symptoms, but in a fatal case reported by Burlew there were no typhoid ulcers in the intestine, although the bile containing typhoid bacilli entered the duodenum freely. In chronic typhoid bacillus carriers, although the typhoid bacillus may be the predominating micro-organism in the intestinal contents, no intestinal disturbances are produced and health is maintained. Wennagel, working in Krehl's clinic, found that infiltration of the lymphatic tissue of the intestine occurred not only in the second, but also in the third, fourth and even fifth week. Necrosis and sloughing of the swollen Peyer's patches were observed as early as the second and as late as the seventh week. He concluded that the characteristic typhoid symptoms are not the result of the intestinal lesions, but the two are co-ordinate. Typhoid fever is thus a general infection in which intestinal alterations can occur. Not only are these cases of typhoid fever without intestinal lesions, but Velich has observed severe typhoid ulceration of the intestine without any disturbance of the health; in other words, without typhoid fever. In an article published in the Jour. A. M. A. in 1907, from which we quote at length, Pratt, Peabody and Long conclude that it is probable that the typhoid bacilli in the intestine come chiefly from the bile. There is no evidence that they are thrown off in large numbers from the ulcers as was formerly taught. If so, one would expect to find an increased number in the lower part of the ileum, but Foster and Kayser, as well as v. Drigalski, showed they were more abundant in the upper portion of the small intestine. Councilman says that he has not infrequently been unable to demonstrate bacilli in sections through the base of typhoid ulcers. Jurgens reported that typhoid bacilli may be present in the intestinal contents in the usual number when the ulcers have entirely healed.

STRUCTURE OF OPSONINS.

Numerous investigators, among them Savtchenko, Besredka, Loehlein and Dean, have regarded opsonins as identical with amboceptors. Muir and Martin have shown that not every immune body produces an opsonizing effect. Hektoen has, from a series of experiments, decided that opsonins are distinct substances or antibodies. Newfeld and Rimpau, Newfeld and Toepfer, Keith, Bulloch and Atkin, agree with Hektoen and Wright and Douglas that opsonic action is due to the presence of hitherto unknown distinct bodies. Before this can be accepted, says Schorer, it will be necessary to repeat many of the experiments that have been made, inasmuch as in England and America especially, these investigations were made at a time when no distinction was made between normal and immune opsonins. The existence of normal and immune opsonins is now quite generally accepted. Newfeld in a consideration of the causes of phagocytosis, states that he believes bacteria and foreign bodies are only taken up by the leucocytes when the latter are stimulated. He bases this

assumption on the phagocytosis of red blood cells by leucocytes, which occurs only when a special haemotropic serum is present. In the haemotropic serum, according to Newfeld, the physico-chemical condition is so changed that a part of the body is modified so as to serve as a stimulus or appetizer for the phagocytes. Virulent organisms dissolve with greater difficulty and give off less appetizer, and because of this there is less phagocytosis of virulent organisms than of organisms with decreased virulence. Spontaneous phagocytosis, according to Newfeld, is due to changes in the cell, one of these changes accidentally stimulating the leucocytes to phagocytosis. In immunization Newfeld believes a specific immune substance is produced, which substance modifies bacterial or other cells so that they will serve to stimulate the leucocytes to phagocytosis. Immune opsonin or bacteriotropin, is a thermostable substance which does not require complement. Normal opsonin, on the other hand, is believed to produce its action because of normal amboceptor and complement, which gently dissolves bacteria and in this way stimulates the leucocytes to phagocytosis. Immune opsonins resist temperatures up to 55° C. for one hour, 65° at times not being sufficient to destroy their action. If the opsonizing action of immune serum is once lost it cannot be regained by the addition of fresh complement. Muir and Martin have found that inactivated immune opsonin absorbs little or no complement. Because of the properties of immune opsonins, they are generally regarded as belonging to the antibodies of the second order of Ehrlich. They apparently possess two groups, the opsonophore and the haptophore. Of these the opsonophore group is destroyed by heat, age, acids, etc. It is thus seen that immune opsonins resemble the agglutinins and precipitins in structure and by some investigators have been thought to be identical with agglutinins.

Normal opsonins, though not acknowledged by Wright to be different from immune opsonins, have characteristics by which they differ from the latter. Normal opsonins resemble complement in that they are absorbed or fixed by sensitized and non-sensitized bacteria, blood corpuscles, specific precipitates and indifferent bodies, and exhibit thermolability and susceptibility to deterioration by age. Noguchi has found that normal opsonins resemble complement in that they are highly labile bodies, lose their action on standing several days, are preserved for a long time when present in the blood in a dry state, and in this condition can be heated to 135° C. without destruction of their functions. Recently Muir and Martin, Levaditi and Inman, and Huhne, Newfeld have ascribed the action of normal opsonins to complement. Cowie and Chapin have found that normal guinea pig serum restores the opsonic power to normal serum which has been heated to 550° C. They believe from their experiments that opsonins (normal) exert their action because of an amboceptor-complement group. Hektoen has recently published results of experiments from which he concludes that the activating element is free from the opsonin, and therefore he believes that opsonins belong to the third order of antibodies of Ehrlich.

LEPROSY.

Ever since Biblical times the leper has been considered as "unclean," and in certain localities, even up to the present time, the afflicted person cries out, or by a bell or other means indicates his presence, that he may be shunned, from the supposed fear of infecting others. The great dread of the disease leprosy has undoubtedly been furthered by many writers of fiction, and such books as "Ben Hur" have had great influence; on the other hand, there has been very little said or done to check or lessen the popular prejudice in this direction, which has been too often shared by physicians, who, not having devoted special attention to the matter, accept thoughtlessly the general verdict. It may safely be said that the word "leprosy" strikes more terror into the heart of its victim, or suspected victim, and also into the mind of the average layman, or even physician, than that of almost any other disease known; and yet, to those who are really well informed, it bears no comparison to either cancer or tuberculosis in the mental distress which it should cause in those afflicted, while syphilis and many other diseases should inspire far more dread of contagion. Few realize that, in this climate at least, leprosy is really a harmless affection to those who may come in contact with it. A good many years ago the Leprosy Committee of the Royal College of Physicians of London wrote as follows: "The all but unanimous conviction of the most experienced observers in different parts of the world is quite opposed to the belief that leprosy is contagious or communicable by proximity or contact with the disease." And recently, in connection with the Early case, Dr. Welch, of Johns Hopkins, remarked: "Leprosy is practically the least contagious of all the infectious diseases." Dr. L. Duncan Bulkley, whom we quote, after careful study of Leviticus, chap. 13 and 14, and of all the other references to leprosy in the Bible, is convinced that what we know by that name was not

intended or included in the descriptions given. It is, he believes, improper to apply the term, "the leprosy of the Bible" to the disease under discussion, lepra, or elephantiasis Graecorum, as studied so thoroughly in Norway and observed abundantly in the East, and more or less over various portions of the earth.

It is to be remembered that the Levitical law was given at Sinai, or soon after, when there was an enormous, untrained horde of Israelites, recently escaped from bondage, who were being welded into a nation, during forty years of a roving, nomad life. In order rightly to shape this people the great law-giver Moses, by Divine direction, formulated many laws and rules, in regard to health as well as in regard to moral and religious matters, which formed the basis for the national life of the Jews for many centuries, and are operative in a measure even to the present day.

Now among the many ordinances relating to health it became necessary to treat of diseases appearing on the skin, some of which are contagious and which, if neglected, would readily spread among those living together in tents, unless some sanitary precautions were taken. We must remember, however, that there were no books and no medical science in those days, but that the priests were about the only ones who possessed knowledge of any kind. Consequently we find in Leviticus just about what we would expect, a layman (in medicine) Moses, writing for lay priests, and consequently it is by no means a scientific discussion of the subject of leprosy.

It is, therefore, no wonder that the description of the various conditions found on the skin should be more or less confused, so that only by the most careful study can one make out what is intended. Several who have investigated the matter state that undoubtedly a number of different diseases appearing on the skin are included in the Biblical accounts, and one can discover indistinct references sufficient to identify some of them; thus, writers have found allusion to syphilis, favus, ringworm, pinta, scabies, psoriasis, eczema, morphœa, leucoderma, and perhaps other affections on the skin, but, as intimated, before, no one well acquainted with true leprosy, as recognized today, would be able to find any description at all fitting to any of its symptoms in the Bible. The cry of "unclean, unclean," and the eeparation of those afflicted, with out the camp, related therefore to various eruptions on the skin and not at all to present-day leprosy, and affords not the sightest reason for such action today.

It is, however, now known that neither the tubercular nor the macular leprosy ever presents a white diseased surface, and these instances probably related to psoriasis, as in the case of Moses' hand, Miriam, and Gehazi; also in many places the Bible speaks of the skin turning white with white hair on it, referring to leucoderma, etc. It is to be remembered that not long ago the word lepra, now exclusively applied to leprosy, or elephantiasis Græcorum, was a common designation for psoriasis, used thus by Mr. Erasmus Wilson of London, and also as the title of quite a large book on psoriasis, by George Gaskoin; while the word "lepra" is used in the Greek New Testament to indicate the leprosy of the Bible, and this word lepra means scales, Finally, the word *zara'ath*, translated leprosy in the Old Testament, signifies a smiting or stroke, and in the German of the middle ages the same word was translated *aussasaïg*, indicating an outcast, or one unfit to live with others.

URIC ACID AND GOUT.

His and Freudweiler have not long since produced evidence to account for the Sodium Urate deposits in cases of gout. They showed that an inflammatory process, similar to the one observed in gout, can be produced by a crystalline deposition of sodium biurate; and Kionka has shown by animal experiments that a long-continued increase of the alimentary uric acid content of the blood leads—at least in certain places—to a precipitation of uric acid crystals. The concurring views of numerous authors, that a primary overloading of the blood with uric acid plays an important role in bringing about a condition favorable for the urate deposit, meet with no serious controversy. The questions, however, still remaining to be studied are: 1. Why in cases of leukemia, pneumonia, and of chronic nephritis, in which there is likewise a noticeable overloading of the blood serum with uric acid, there seldom or never results a condition similar to the one observed in gout; and 2. Why the deposits are always formed in certain predetermined places in the body H. Strauss, in his recent excellent monograph, says in regard to the first point, that the combination of gout and leukemia has been described by Duckworth, Pibram, and Ebstein, but that such cases are very rare; however, he refers to the fact that gout and nephritis occur coincidently by no means infrequently. According to Strauss in gout the overloading of the blood serum and the tissue fluid with uric acid is not a necessary condition for the precipitation of the crystalline deposit of acid sodium urate. And, also, the fact that this crystalline precipitation does not take place in all tissues, but only in certain

definite locations, shows that the purely chemical process caused by a superabundance of uric acid in the plasma cannot be the decisive factor. The consideration must be added, to which attention has already been called, that a similar increase is possible in the blood of those who are not gouty. On this account it is important to investigate the causes for the precipitation of urates from a solution which contains large amounts of uric acid, but is not saturated. This shows the direction for an investigation of the relation between alkalescence and activity of the blood. Researches along these lines have been conducted by Klemperer, who employed the method of determining the CO_2 content of the blood, by Strauss, and by Magnus-Levy according to the titration procedure of Loewy. None of these, however, have brought to light any reduction in the alkalinity of the blood. Strauss has shown that the human organism holds with extraordinary tenacity to a blood alkalescence within a certain limited range (300-350 mg. NaOH to 100 cc. blood). He concludes therefrom that the influence of the alkalis introduced into the body does not seem of the highest importance in the solution and hence excretion of uric acid. However, it may be said that E. Pfeiffer has succeeded, by the introduction of alkali during a gouty attack, in diminishing the amount of uric acid deposited from solution; and that, on the other hand, the addition of an acid reacting compound to a solution containing uric acid, or its salts, does not under all circumstances cause the precipitation of uric acid. However, uric acid can be retained in solution, as has been shown by Minsowski and extemporaneously by Goto, by means of a chemically pure nucleic acid, namely, thymic acid. These conflicting reactions can be explained by the fact that uric acid has been wrongly classified as an acid while the other members of the xanthin group are regarded as bases. The importance attributed to the products of local processes in the precipitation of uric acid is not detracted from by the results of more recent animal experiments made by van Loghem, Silbergleit and others, who found that in animals the introduction of alkali favors the formation of urate deposits, while the introduction of acids inhibits it. This can only be explained by the assumption of local metabolic disturbances or changes. The peculiar relation of the lymphatics in cartilages causes fluid to appear, as Ebstein mentioned, that there a local retardation of the circulation would generate a condition of fluids overladen with uric acid. Strauss attributes the establishment of a gouty attack to the heaping up of certain products of metabolism, in localities where there is already an abundance of uric acid, which is consequently precipitated.

STANDARD OIL VS. HOOKWORM.

The gift of one million dollars by Jno. D. Rockefeller, the Standard Oil magnate, for the purpose of fighting hookworm disease offers considerable opportunity for speculation and theorizing. That the gift is so huge vastly impresses the popular mind; but, balancing the money against the task of applying it properly and successfully toward the eradication of Uncinariasis, it shrinks relatively to rather small dimensions. During the past decade, thanks to the brilliant investigations of Dr. Chas. W. Stiles, of the United States Public Health and Marine Hospital Service, we have come to know apparently about all there is to know about Hookworm disease. That it is exceedingly prevalent throughout large sections of the South is thoroughly demonstrated. That thousands of individuals, of the large working class of people, are affected and thereby rendered unfit for participating in the great industrial upbuilding of this section can easily be believed. The disease seems to present few or no difficulties so far as diagnosis is concerned, the symptoms being well defined and the parasite being easily found in the stools. And the treatment is so cheap, so short, so easily applied, and so magical in its results that its very simplicity has aroused the risibilities of many a lay news editor. A few cents worth of Thymol and a dose of Epsom Salts turns the trick and, presto! the hitherto pale, stunted, anemic, lazy, shiftless, doless, good-for-nothing, dirt-eating Southern white is transformed into a useful and desirable citizen. It is, however, not with any purpose of attempting to detract from the worth of endeavors to banish a disease which has probably for many, many years cast its blighting influence over this sunny land of ours, that we write in this vein. There can be no doubt, but that it is entirely possible to combat the disease so successfully that it may be entirely eradicated. Yet the undertaking is a huge one and will not be carried out without opposition. Mr. Rockefeller's contribution and the method he has adopted, by the appointment of a commission composed of the following eminent men:

Dr. William H. Welch, professor of pathology in Johns Hopkins University; president of the American Medical Association;

Dr. Simon Flexner, director of Rockefeller Institute of Medical Research;

Dr. Charles W. Stiles, chief of the division of zoology, United States Public Health and Marine Hospital Service, and discov-

erer of the American species of Hookworm, and the prevalence of the disease in America;

Dr. Edwin A. Alderman, president of the University of Virginia;

Dr. David E. Houston, chancellor of Washington University, St. Louis, Mo.;

Prof. P. P. Claxton, professor of education in the University of Tennessee;

Mr. J. Y. Joyner, State Superintendent of Education in North Carolina, and president of the National Educational Association;

Mr. Walter H. Page, editor of The World's Work;

Dr. H. B. Frissell, principal Hampton Institute;

Mr. Frederick T. Gates, one of Mr. Rockefeller's business managers;

Mr. Starr J. Murphy, Mr. Rockefeller's counsel in benevolent matters;

Mr. John D. Rockefeller, Jr , would seem to guarantee that there will be results which are worth while.

The work merits and receives the approbation of the whole nation and of the medical profession particularly. And since it affects our Southland especially, we should donbtless feel very grateful to Standard Oil. It would have required many years to have secured so large a sum of money by legislative enactment on the part of States or the nation to be applied for such a purpose. Perhaps it never could be done. When the taxpayer is asked if he may be called upon to contribute his share for such an enterprise, he usually puts his foot down upon it very promptly. But everybody must use Standard Oil. It is, therefore, only necessary to raise the price a little and whether he will or no the consumer must contribute. Such an admirable arrangement it would be if it were possible to obtain the assistance of Mr. Rockefeller in a campaign against tuberculosis, typhoid fever and other prevalent and widespread diseases. He need only squeeze the people a little harder and the funds are forthcoming. And then while it is perhaps only human nature that we should each and every one imagine that we could have done better if the doing had been left to us, it does seem that there are more powerful and weighty reasons why such a sum of money could have been applied to better purpose in the fight against tuberculosis. Of course it wouldn't have counted so greatly in that direction, because of the vastly greater need, the results would contain less of the spectacular and, on a purely selfish basis, the South would have received less of the benefits than it will from this million dollar fund.

S. A. L. RAILWAY SURGEONS.

The Association of Seaboard Air Line Railway Surgeons held its eighth annual meeting in the hall of the House of Representatives in Raleigh, N. C., October 19th and 20th.

The sessions were largely attended, there being present surgeons from all sections of the country through which the Seaboard Air Line passes. The meeting was called to order by Dr. James R. Rogers, of Raleigh, chairman of the committee on arrangements, and following this there was a prayer by Rev. Milton A. Barber, rector of Christ Church. There were a number of addresses of welcome, the first of these being by Governor W. W. Kitchin.

City attorney, Walter Clark, Jr., welcomed the doctors on behalf of the city, and Dr. L. J. Picot, physician of the State Hospital for the Insane, on behalf of the Medical Society of Raleigh and Wake county, eloquently expressed the welcome to the visitors. Mr. W. H. Pace, of the Raleigh Bar, and legal representative of the Railroad, and Chief Surgeon, Jno. M. Burke, of Petersburg, Va., responded. The address of the President, Dr. William Weston, of Columbia, S. C., followed. Dr. Weston discussed various topics in reference to the work of the Seaboard Air Line surgeons and the profession and their relation to public health, which he held the thing of main importance. In his remarks he said that the physician is the one depended upon in the problem of health.

He dealt especially with some of the more recently discovered problems of health and hygiene, which the South has now to face. Some of his utterances were sensational and radical, but none the less vital and true.

The association voted unanimously to adopt the recommendations of Chief Surgeon Jno. M. Burke that the management of the Seaboard Air Line be urged to establish a relief department for the employes and a chain of hospitals under the relief department auspices.

This action was taken on recommendation of a special committee named to outline some scheme along the line of the recommendations of Dr. Burke in his annual address.

A committee, including the officers of the association, will lay the matter before the officials end do whatever they can to bring about the establishment of the department. Discussion developed the fact that many of the Railway officials high in authority are already heartily in favor of a relief department for the system. It looks as if it will certainly be inaugurated soon after the system passes out of the hands of the receivers

A large number of interesting papers were

presented. Among the prominent names which appeared on the programme were Dr. D. M. Prince, Laurinburg, N. C.; Dr. Oppenheimer, Tampa, Fla.; Dr. R. E. Caton, Americus, Ga.; Dr. S. B. Little, Colbert, Ga.; Dr. S. C. Benedict, Athens, Ga.; Dr. H. A. Royster, Raleigh; Dr. Leigh, Norfolk; Dr. D. M. Caldwell, Wilmington; Dr. E. W. Pinson, Cross Hill, S. C.; Dr. Cameron, Birmingham, Ala.; Dr. A. K. Swift, Woodbine, Ga.; Dr. Holladay, Portsmouth; Dr. Miller, Cross Hill, S. C.; Dr. J. W. Palmer, Ailey, Ga.; Dr. Knowlton, Columbia, S. C.; Dr. Albert Anderson, Raleigh; Dr. Knox, Raleigh.

Among the social features was a barbecue at Pullen Park tendered by the Raleigh doctors. The visitors were provided complimentary tickets to the North Carolina State Fair, which was being held during the same days on which the Society met.

The election of officers resulted as follows: President, Dr. James R. Rogers, of Raleigh; First Vice-President, Dr. J. G. Dean, Dawson, Ga., (re elected); Second Vice-President, Dr. H. M. Wilder, of Charlotte; Third Vice-President, Dr. H. A. Burke, of Petersburg, Va.; Secretary and Treasurer, Dr. J. W. Palmer, Ailey, Ga., (re-elected).

Dr. R. H. Terrell, of Richmond, was elected a member of the executive committee.

The association adjourned to meet in Birmingham, Ala., October, 1910, the date to be fixed later.

CONFERENCE ON PELLAGRA.

The National Conference on Pellagra held in Columbia, S. C., November 3rd and 4th, brought together, from all parts of the United States and from many foreign countries, about three hundred of those who have taken most active interest in observing and investigating the disease. To C. F. Williams is due chief credit for projecting the conference and arousing the enthusiasm manifested in so large an attendance. Aside from the discussions of the disease, its etiology and prevention, the main object of the convention was the formation of a National Association for the Study of Pellagra. Dr. J. W. Babcock, of Columbia, and Dr. C. H. Lavinder, of the United States Public Health and Marine Hospital Service, have also taken active part in promoting the conference. According to reports read at the conference the disease is a problem of import not to the South peculiarly, but really to the whole of America. The prevailing opinion, as expressed by the majority of those who addressed the convention, is that there exists a very close etiologic relationship between pellagra and corn. Measures toward preventing the disease were emphasized.

The sessions of the conference were held in the assembly hall of the State Hospital for the Insane, at Columbia. Governor Ansel welcomed the visitors in most appropriate manner. The reading of papers, presentation of clinical cases, discussions, and demonstrations occupied the time so fully that interest was at no time lacking. A number of men of world-wide reputation were present. Among these were George F. Gaumer, M. D., Izamal, Yucatan; Dr. D. J. Williams, medical superintendent of the asylum, Kingston, Jamaica, W. I.; C. J. Manning, M. R. C. S. Eng., L. R. C. P. Ed., medical superintendent lunatic asylum, Barbadoes, W. I.; Dr. A. Marie, Paris, France; John Warnock, M. D., medical director government hospital for the insane, Cairo, Egypt, and Dr. F. M. Sandwith, F. R. C. P., Gresham Professor of Physics, London, England.

Gen. Kerr, U. S. Public Health and Marine Hospital service, Washington; E. J. Watson, commissioner Department of Agriculture, Commerce and Industries, Columbia; C. H. Lavinder, United States Public Health and Marine Hospital service, Washington; Isadore Dyer, M. D., dean of medical department Tulane University, New Orleans, La.; H. F. Harris, M. D., secretary State Board of Health, Atlanta, Ga.; C. W. G. Rohrer, M. D., medical assistant State Board of Health, Baltimore, Md.; John S. Turner, M. D., Dallas, Texas; E. B. Saunders, M. D., State Hospital, Columbia; J. W. Mobley, M. D., State Sanatorium, Milledgeville, Ga.; C. C. Bass, M.D., New Orleans, La.; H. P. Cole, M. D., and G. J. Winthrop, M. D., Mobile, Ala.; J. M. King, M. D., Nashville, Tenn.; J. H. Taylor, M. D., Columbia; J. F. Brown, M. D., Fairview, N. C.; H. E. McConnell, M. D., Chester; J. J. Watson, M. D., Columbia; C. S. Pixley, M. D., Winnsboro; William Allan, M. D., Charlotte; W. O. Nisbet, M. D., Charlotte; T. W. L. Bailey, M. D., Clinton; J. H. Randolph, M. D., and R. N. Greene, M.D., Hospital for Insane, Chattahoochee, Fla.; Rea Parker, M. D., State Hospital, Williamsburg, Va.; J. M. Buchanan, M. D., State Hospital, Meridian, Miss.; J. Roddey Miller, M. D., Rock Hill; John Lunney, M. D., Darlington; Theodore Maddox, M. D., Union; H. H. Griffin, M. D., State Hospital, Columbia; M. B. Young, M. D., Rock Hill; Crown Torrence, M. D., Union; D. S. Pope. M. D., State Hospital, Columbia; A. B. Clark, M. D., Plantersville, and E. M. Whaley, M. D., Columbia, were names of well known doctors of the South whose names appeared on the program. The following resolution presented by Dr. J. Howell Way, of

Waynesville, N. C., was unanimously adopted:

"Resolved, That this conference recognizes the widespread existence of pellagra in the United States and urges upon the national government the necessity of bringing its powerful resources to bear upon the vital question of its cause, prevention and control.

"Resolved, That while sound corn is in no way connected with pellagra, evidences of the relations between the use of spoiled corn and the prevalence of pellagra seem so apparent that we advise continued and systematic study of the subject, and, in the meantime, we commend to corn growers the great importance of fully maturing corn upon the stalk before cutting the same.

"Resolved, That the work of this conference be brought to the attention of the various State and Territorial Boards of Health and they severally be urged to specially investigate the disease, particularly as regards its prevalence, and that they also see that the proper inspection of corn products sold in the various States be had."

The climax of the conference, however, was reached when The National Association for the Study and Prevention of Pellagra was formally organized. Dr. J. W. Babcock, superintendent of the South Carolina State Hospital for the Insane, Columbia, was elected president; Dr. William A. White, superintendent of the United States Hospital for the Insane, Washington, D. C., vice-president, and Dr. George A. Zeller, superintendent of the State Hospital for the Insane, Peoria, Ill., secretary-treasurer. Later, a vice-president for each State interested in the movement, will be named

An official pellagra congress, to be held under the auspices of the association, is scheduled for June, 1910, in Peoria, Ill., which city was chosen without a contest.

GUILFORD COUNTY PHYSICIANS AND PROHIBITION.

The medical profession of the whole State have probably awaited with considerable interest the outcome of the action taken by the physicians of Greensboro, N. C., in regard to the prosecution of certain doctors in the city courts because of alleged violation of the prohibition laws of the State. One physician was tried on the charge of having written a prescription for whiskey for himself. The city ordinance requires the chief of police each day to inspect the prescriptions for whiskey filed in the drug stores and at the end of each month publish the number of prescriptions given by each physician. The doctors consider, and we believe justly, that this espionage, if not unconstitutional, is an invasion of their professional rights. Indeed, such a law places the doctor entirely beyond the pale of the ordinary free, independent professional man. It is placing in the hands of a layman—and he may be a very honest, upright man, too—the right to say when and how the professional man shall use those means and tools which he alone knows how to use. A law which says a doctor must not prescribe a drug in the manner which to him seems best, abrogates those precious rights so long cherished and, indeed, at once destroys his place in modern society. It were quite as justifiable to say that he must not employ aconite, opium, chloroform and other dangerous drugs as to attempt to deny him the right to prescribe alcohol. The Greensboro and Guilford county doctors resented the action of the authorities, and in a meeting held behind closed doors the Guilford County Medical Society adopted the following resolutions which we herewith print in part:

"Resolved, By the Medical Society of the County of Guilford, in regular meeting, duly assembled, that, in protection and perpetuation of the dignity, honor and independence of our profession, we solemnly protest against the inauguration of such methods as unwarranted by law, grossly unjust to the individual victims, in derogation of the rights of the citizen, discrediting to the medical profession, and calculated to bring the orderly administration of justice into public disrepute and contempt.

"Resolved second, That we hereby pledge our united effort towards discountenancing such a perversion of justice in the name of law, and towards repelling the assault upon the efficiency of the medical profession and its integrity, involved in such procedure: and to that end

"Resolved third, That we hereby forbid any druggist who may fill prescriptions written by members of this society from exhibiting the same to the inspection of any one without the written consent of the physician writing it and the patient receiving it.

"Resolved fourth, That we hereby re affirm the resolutions of the North Carolina Medical Society, adopted at their annua meeting in 1908, and pledge to them and to their establishment and perpetuation ou hearty support."

These resolutions upon their publication and presentation by representatives of th medical society before the board of alder men aroused considerable factional feeling Action was deferred by the aldermen unt their next meeting.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The American Public Health Association held its thirty-seventh annual meeting in Richmond, Va., October 19-22, 1909. This Association is one of the most important bodies in America, composed as it is of the sanitary officers and health experts from every State in the Union, from Canada, Mexico and Cuba—men who occupy high position in the scientific world. All of the meetings were held at the Jefferson Hotel, the general association meeting as a body each afternoon, while in the mornings it was divided into three sections—on laboratory work, vital statistics and the special work of municipal health officers.

The officers of the association were: Dr. Gardner T. Swarts, of Providence, R. I., president; Dr. R. M. Simpson, of Winnipeg, Manitoba, first vice-president; Dr. Jesus Chico, Guanajuato, Mexico, second vice-president; Major Charles F. Mason, United States Army, third vice-president; Dr. Charles O. Probst, Columbus, Ohio, secretary, and Dr. Frank W. Wright, of New Haven, Conn., treasurer.

The local committee of arrangements consisted of Dr. E. C. Levy, chairman; Dr. Allen W. Freeman, Dr. McGuire Newton, Colonel John S. Harwood, R. S. Tuck, P. M. Fry and Miss S. H. Cabaniss.

Rev. Robt. W. Forsyth, Rector of St. Paul's Episcopal Church made the opening invocation. Mayor Richardson, of Richmond, extended the hospitalities of the city, and Dr. George Ross, on behalf of the Virginia doctors, welcomed the visitors; both addresses calling forth great applause. Dr. C. Robinson, of Brunswick, Me., responded, and Dr. Frederick Montizambert, Director General of Public Health of Canada, Professor Carlos Orvananos, of Mexico, and Dr. A. Tarralbas, of Cuba, conveyed the greetings of their respective countries. President Swarts' address was scholarly, but very practical, since it dealt with most of the important problems of sanitation and hygiene now confronting these countries.

In regard to the question of Federal supervision of public health, he took the ground that the efforts of "new and active promoters of a national board of health should be supported only so far as the experience of this association warrants. I believe that an amalgamation of the various scientific divisions of the Federal departments under one head or bureau would receive more active and successful support than the establishment of a national board of health. Such a bureau should have complete control of interstate sanitary questions, including the use of streams for sanitary as well as unsanitary uses, and of the transmission of communicable diseases by transportation and immigration.

"It should also have the power to enter any State for the purpose of study and investigation, for the benefit of all other States, when such invasion of a State might seem necessary."

In regard to new problems, he called attention to the hook worm, the prevention of giving a lodging place in this country to the plague leprosy, in which he advocates a large central colony of all cases in the country for care, treatment and possible cure; for the study of pellagra, and of a new disease developing in the Central West, known as poliomyelitis.

In closing he made a strong plea for more rigid sanitary methods to prevent ophthalmia, a form of blindness frequent among children, communicable and preventable, declaring that because of negligence of ordinary precautions thousands were living lives of blind-helplessness.

Each of the three sections into which the association is divided has its own subsidiary organization, and in each there was the appointment of a committee to nominate officers, the reading of minutes of the Winnipeg session last year, the election of new members and discussions of other matters, such as the publication of important papers for general distribution.

The following section officers for the ensuing year were elected:

Laboratory Section—Chairman, Dr. William Royal Stokes, Baltimore; Vice-Chairman, Dr. John A. Amyot, Toronto; Secretary, B. R. Richards, Columbus, O.; Recorder. Dr. H. D. Pease, New York.

Municipal Health Officers Section—Chairman, Dr. S. H. Durgin, Boston; Vice-Chairman, Dr. E. H. Buehler, Indianapolis; Secretary, Dr. E. C. Levy, Richmond; Recorder, Dr. C. V. Chapin, Providence, R. I.

Vital Statistics Section—Chairman, Dr. William H. Guilfoy, New York; Vice-Chairman, Dr. W. C. Woodward, Washington; Secretary, Dr. W. R. Batt, Harrisburg, Pa.

In the Laboratory section there were papers or addresses by John S. Fulton, of the International Congress on Hygiene, of Washington; Charles V. Chapin, of the Health Department, Providence, R. I.; Gerhard A. Bading, Health Department, Milwaukee, Wis.; Marshall L. Price, State Board of Health, Maryland, and J. O. Jordan, of the Milk Laboratory, Department of Health, of Boston, who attracted especial attention in a carefully prepared paper on the "Utilization of Bacteriological and Microscopic Methods in the Inspection of Milk."

After these general papers the Laboratory section took up in turn three general topics —Air, Diphtheria and Animal Tests and Inoculations. "Bacteriological Tests of Air Analysis," by John Weinzirl, of the University or Washington, Seattle; "Preliminary Note on the Determination of Carbon-Dioxide in Air by Electric Conductivity, with a Record of Some Experiments," by Professor R. C. Howe, of the Massachusetts Institute of Technology.

The discussion of Diphtheria was led by F. H. Slack, B. L. Arms and Marion Wade, all of the Laboratory of the Department of Health of Boston, who presented a joint paper on "Longevity of the Bacillus of Diphtheria on Swabs," and there was a report of the committee on standard methods for bacteriological diagnosis of the bacillus of diphtheria, presented by Dr. B. R. Rickards.

A discussion of rabies and glanders came up under the head of animal tests and inoculations, a paper on the "Period of Incubation of Inoculation Rabies" being presented by B. L. Arms, Jr., of the Boston Department of Health, while there were reports of the committees on methods for diagnosis of rabies and on methods for the bacteriological diagnosis of glanders.

In the Section on Vital Statistics, the Chairman's address was read by Dr. Chas. A. Hodgetts, of Toronto. The following are some of the more important presented: "Morbidity Statistics in the Matter of Insanity in Immigrants," Dr. Peter H. Bryce, of Ottawa, immigration officer of the Dominion of Canada; "The Ages of 500 Cases of Hook Worm Disease and Frequency of the Disease in Different Age Groups," a carefully prepared scientific study, by Dr. C. W. Stiles, of Washington, and "Smallpox in the United States," by Assistant Surgeon-General J. W. Trask, of the United States Public Health and Marine Hospital Service.

In the Section of Municipal Health Officers a series of resolutions were adopted condemning the practice which is declared to obtain in many cities of appointing the health officer for political considerations, rather than merit, as contrary to the best interests of public health, and recommending that when proper officers are selected they be continued in office and dismissed for cause only, it being represented that in the course of his duties the health officer naturally has to take many stands which may make him personally or politically unpopular, yet which are for the best interests of the community.

A paper was read by Dr. Carlos Manuel Garcia, of Mexico City, on the "Utility of the Domiciliary Visit in the Struggle Against Yellow Fever,"

Dr. Francisco Valenzuela, of Mexico City, presented a careful study of the campaign against yellow fever on the Isthmus of Tehuantepec, in which he explained the methods of fumigation adopted to utterly exterminate the mosquito. He said his recent experience all over Mexico could now confirm the guarantee that yellow fever is fully under control. A report of yellow fever in the Mexican republic from August, 1908, to date, prepared by Dr. Edudo Liceaga, president of the Superior Board of Health of Mexico, was read. He showed that throughout the republic of Mexico during the past year there had been no epidemic of yellow fever, but only a few isolated cases.

President Swarts expressed the gratitude of the convention to the Mexican members for their remarkable reports. And Surgeon-General Wyman discussed the three papers, saying that they gave evidence of the care being taken by the Mexican authorities in the suppression of the scourge.

Typhoid fever received special attention in the general session. The report by the committee on typhoid fever urged emphatically that physicians be urged to make prompt report to health officers of all suspected cases. Physicians, the report said, must not only be skilful in diagnosis, recognizing the enemy on its first appearance, but must also be faithful in reporting, the part most often neglected.

Dr. William Royal Stolkes, of the Baltimore Health Department, spoke on the prevention of typhoid in the city and country districts, illustrating from his own experience. Flies he held to be the largest typhoid carriers, showing that where proper sewers and screens had been provided there could be no disease. Nearly, if not all, of Type A of the typhoid bacillus, he contended, was carried by flies, while Type B, a milder disease, he attributed either to drinking water or milk.

Dr. C. V. Chapin, of Providence, R. I. spoke on "The Control of Milk-Borne Outbreaks of Typhoid Fever."

Industrial Hygiene, Fresh Air and Ventilation problems were discussed, with a series of papers by invited New York sociologists, who in a great city are daily applying problems which the theorists in sanitation have advanced.

A smoker at the Jefferson Hotel, a boat excursion on the James River, an automobile tour of the city and environs and a reception to the visiting women provided entertainment in a city far famed for hospitality.

EDITORIAL NEWS ITEMS.

Dr. F. J. Hunt, of Detroit, Mich., spent a few days in Hickory, N. C., a few days ago, in company with a party of his friends, looking for a location for a Tuberculosis Sanitarium.

It is supposed that a suitable place will be found in a few days.

The South Carolina State Trained Nurses' Association met in the chapel at the Roper Hospital in Charleston, S. C., on October the 27th and 28th, with Miss Leila V. Jones, superintendent of nurses at the Roper Hospital, presiding.

The attendance was large, and the meeting a great success. There were several instructive addresses made to the nurses on different medical subjects.

A resolution was unanimously adopted at the annual meeting of the stockholders of the Anderson County Hospital Association, met in the hospital building in Anderson, S. C., on October 15th, to double the capacity of the hospital building, making fifty beds instead of twenty-five.

Another resolution provided for several beds for indigent persons without cost. This institution has just completed its first year, and its history has been a most remarkable one.

Work on the hospital at the federal prison in Atlanta, Ga., has been begun. It is to be a two-story, stone structure, which is to cost in the neighborhood of $100,000 when completed.

When completed the new hospital will be one of the largest and most complete in the South. It is planned that the federal building, when finally completed will accommodate from 2,000 to 2,500 patients. The hospital is being built on the prison reservation.

Governor Ansel, of South Carolina, on October 29th, appointed Dr. E. A. Hines, of Seneca, and Dr. William Eggleston, of Hartsville, members of the executive committee of the State Board of Health of South Carolina, vice Dr. J. A. Hayne, of Greenville, resigned, and Dr. James Evans, of Florence, deceased.

Dr. Hines graduated from the Medical College of South Carolina in 1891, and Dr. Eggleston graduated from the University of Nashville, Medical Department, in 1898. Both of the men are very prominent physicians, and will no doubt make very efficient members of the board.

Dr. J. M. Elliot, of LaGrange, Ga., was lynched, Oct. 22, for the murder of Geo. L. Ivers in Sept. 1908.

Dr. Archie A. Barron, a young graduate in medicine of Vanderbilt University, Nashville, Tenn., who has been practicing medicine at Lake Toxaway, N. C., during the summer months, has recently located in Charlotte, N. C.

Dr. William D. Tewkesbury, of Washington, N. C., a graduate of the George Washington University School of Medicine, has been appointed superintendent of the Virginia State Tuberculosis Sanitorium, at Catawba, Va.

The annual convention of the Southern Medical Association was held in New Orleans, La., on November 9-11. The meeting was very interesting and instructive, there being more than a hundred papers read by prominent members of the association representing every section of the country.

Among the subjects which received especial consideration was that of pellagra.

At the monthly meeting of the Richmond Academy of Medicine and Surgery held October 26th in Richmond, Va., Dr. J. Shelton Horsley read a paper "Report of a case of Transfusion of Blood," which was very instructive and interesting to the academy. Dr. R. W. Martin, of Lynchburg, was expected to be present and address the members, but for some reasons he was prevented from being present, and papers were read by Dr. Charles R. Robins and Dr. McGuire Newton in the place of the address.

At this meeting, Dr. J. A. White, of Richmond, was elected chairman of the committee on entertainment of the Tri-State Medical Association which will be held in Richmond on February the 8th, 1910. Drs. W. K. Lord, Gerald A. Ezekiel and George T. Handley were nominated to membership, and will be elected at the next meeting.

The Ochmulgee Medical Association met in McRae, Ga., on October the 19th. Mayor H. P. Whiddon delivered the address of welcome, and the response on the part of the association was made by J. B. Clark, of Eastman, Ga. An address was delivered by Dr. T. J. McArthur, of Cordelte, president of the Georgia Medical Association, which was thoroughly appreciated by the association.

The city authorities of New Orleans, La., recently appropriated $35,000 to the city Hospital for the insane.

Dr. P. D. Sims, has been appointed to succeed himself, as city physician of Chattanooga, Tenn. He has held this office for a long term of years.

Dr. O. O. Fanning, who has for the past year, so efficiently superintended the Wesley Memorial Hospital in Atlanta, Ga., has resigned his position in that institution. Dr. Fanning is a promising young physician, and a man who will be greatly missed in that institution. He graduated with honors from the Atlanta School of Medicine in the spring of 1908.

Dr. Fanning is succeeded at the hospital by Dr. George N. MacDonell, of Savannah, Ga., who will no doubt fill the position very acceptably. Dr. MacDonell is a graduate of the Atlanta College of Physicians and Surgeons.

The new Rex Hospital, Raleigh, N. C., was occupied October 1st. The furniture and patients were moved from the temporary quarters to the new building without accident.

The regular monthly meeting of the East Mississippi Four County Medical Society was held at Armory, Miss., October 12. Dr. L. C. Flemster, of Nettleton, presided and a good attendance of physicians was reported.

Dr. Addison G. Brenizer, a native of Charlotte, N. C., recently a student at the Medical School at Heidelburg, Germany, has been elected physician in charge of the new American Hospital in Paris, France. This institution was opened November 1st. It is the only American hospital in Europe.

At the regular bi-monthly meeting of the Hamilton County, Tennessee, Medical Society held in Chattanooga, October 15, a large and enthusiastic attendance was reported. The society was addressed on "Iritis" by Dr. George H. Price, of Nashville.

The North Carolina Association for the Prevention of Tuberculosis will meet in Greensboro, N. C., January 25. 1910. An attractive program is being arranged, a number of men who are prominent in the fight against the disease, having consented to be present. The American Tuberculosis Exhibition will be in the city to aid in the work. Dr. W. L. Dunn, of Asheville, is President, and Dr. Chas. Julian, of Thomasville, is secretary.

Dr. Arthur T. Reeves, a native of Buncombe county and for the past three years connected with the government hospital service in Panama, has returned to Asheville where he will locate permanently.

Dr. Walter V. Brem, a native of Charlotte, N. C., now located in Christobal, Canal Zone, Panama, has recently visited his parents at their home in Charlotte. Dr. Brem during the summer underwent successful operative treatment al Rochester, Minn. He is an energetic young doctor of the highest scientific attainments: his recent article in the *Journal of the American Medical Association*, of September 11, in which he reported his investigation of the blood for the tubercle baccilli attracted very wide attention and most favorable comment. He is a graduate of the Medical Department of Johns Hopkins University.

Dr. T. B. Watkins, recently of Concord, N. C., has been elected assistant physician to the State Hospital for the Insane at Morganton. Dr. Watkins is a native of Rutherfordton.

An effort on the part of the faculty of the Chattanooga Medical College to exclude women from admission to the school failed recently because of the fact that the board of trustees had already decided that the school shall be co-educational. Some of the doctors of the faculty have been urging the abandonment of the co-educational feature in the medical department for a long time. At the meeting of the board of trustees last spring, the matter was taken up and again decided in favor of the women.

The National Wholesale Druggists Association, at the recent meeting in Richmond, Va., urged the importance of laws to check the sale of cocaine. The association went on record as recommending that efforts be made to obtain national legislation against the drug.

As a result of differences between the Superintendent and corps of nurses of St. Peter's Hospital, Charlotte, N. C., nine nurses went on strike, and all efforts to adjust matters were ineffectual Most of the young ladies promptly found places at other hospitals and the authorities of St. Peter's have procured other nurses.

The city authorities of Chattanooga, Tenn., in conformation to their policy of curtailing municipal expenses, have cut down the appropriation to Erlanger Hospital, so that this institution instead of being run on a basis of $18,000 per year from city and county, must now be operated on $10,000; $5,000 from the city of Chattanooga and $5,000 from Hamilton county

Nurses Graduate.

Sixteen young women were graduated from the Touro Iafirmary Training School for Nurses New Orleans, on the evening of Sept. 30.

The exercises were short, and consisted

solely of addresses by the president and vice president of the Board of Managers of the institution, and the giving of the awards.

Those who completed the course and received diplomas and medals were: Misses E. L. Noble, Z. A. Schapper, L. A. Netterville, Mrs. L. Connell, Misses L. P. Cuyler, L. E. Nicholls, J. T. Gill, Mrs. O. G. Lytle, Misser A. G. Dupuy, P. Jacobs, C. Collongues, O. M. Ayraud, Mrs. L. M. Bradford, Misses F. M. Roettger, E. Weiss, E. W. Racine.

The Judah Touro prize of $100, awarded to the pupil attaining the highest standard of excellence in all branches, was won by Miss F. M. Roettger.

New College Hospital.

Mrs. Joseph Brown Whitehead, of Atlanta, has given $5,000.00 to the building of a hospital at the Georgia School of Technology. She therefore has the privilege of naming the building, which will be called the Joseph Brown Whitehead hospital, in memory of her husband, the late Joseph Brown Whitehead.

The gift goes to the institution from Mrs. Whitehead and her two young sons, Joseph Brown Whitehead and Conkey Whitehead, and will make possible the beginning at once of that much-needed building—a hospital for the boys at the Tech.

Dr. Moore Locates at Chester.

Dr. A. Wylie Moore, has located in Chester, S. C., for the practice of his profession and is occupying a suite of offices in the Agurs building. Dr. Moore is a graduate of the academic and medical departments of the University of Virginia and has served as surgeon on the staff of Bellevue hospital, New York city. Dr. Moore is a Chester boy and is a brother of Dr. B. S. Moore, of Charlotte, N. C., and is a nephew of Dr. W. Gill Wylie, of New York.

Mississippi Medical Examinations.

Out of the eighty-one applicants at the recent meeting of the Mississippi Medical Examiners (State Board of Health) only twenty-one were licensed to practice medicine. The sixteen negro members all failed to pass.

This remarkably small percentage is due in part to the rigid policy instituted by the board, and also to the close watch kept on the applicants to detect the possible use of "jacks." There were a good many instances of this kind. The successful applicants are:

George Walton Wallace, Arbo, Miss.; Louis Stinson, Canton, Miss.; William James Coleman, Aberdeen, Miss.; William J. Lusk, Winona, Miss.; Marvin Montgomery Hall, Belle Prairie, Miss.; Frank Ellis Barr, Columbus, Miss.; Charles Henry Otken, Jr., McComb, Miss.; William Arthur Toomer, Tremont, Miss.; William A Carpenter, Meridian, Miss.; Lewis Winston Walker, Little Springs, Miss.; James Robert McClain, Mathiston; Geueral W. McGowan, Sturgis, Miss.; James Robert Chaadler, Hattiesburg, Miss.; Marion Lexter Montgomery, Louisville, Miss.; Samuel James Tilden Darden, Myrtle, Miss,; John Edgar Powell, Timberville, Miss.; Samuel Logan Stephenson, Marks, Miss.; Robert Forrest Payne, Hudsonville, Miss ; John William Stringer, Soso, Miss.; Carsie Z. Ballard, Monticello, Miss.; John Gordon Prince, Claude, Miss.

Nurses Graduate.

The graduating exercises of the first class of nurses to have completed their course of training at the training school of the Charlotte Sanatorium were held at the Academy of Music in Charlotte on the evening of October 12, 1909. Mr. D. A. Tompkins, president of the Sanatorium Company presided. Rev. W. M. Kincaid, D. D., of the First Presbyterian church opened the exercises with prayer and Rev. Plato T. Durham, of Concord, N. C., delivered a most eloquent address. Mr. Tompkins presented the diplomas and Miss E. E. Cherryman, superintendent of the Sanatorium, awarded the prizes.

The following are the graduates: Miss Josephine R. Hunnicutt, Lynchburg, Va.; Miss Lena M. Weller, Republic, Ohio; Miss Ethel K. Tittsworth, San Antonio, Texas; Miss Lillian D. Davis, Orlando, Fla.; Miss Katharine A. Olwill, New York, N. Y.; Miss Mary L. Call, Freeport, La.; Miss Mary J. Crooker, Norfolk, Va.; Miss Florence L. Haines, Xenia, Ohio; Miss Lillian C. Waid. Fincastle, Va.

These young ladies were delightfully entertained after the exercises by Mr. Tompkins.

Physician Held for Murder.

An investigation by the coroner's jury into the killing of E. K. Judson, patient of the Jackson, La., insane asylum, whose horribly burned body was found near St. Francisville, La., October 18, resulted in the holding of Dr. E. C. McKowen for the murder.

The coroner's jury found that the body of Judson had been placed by the side of the Yazoo & Mississippi Valley railroad tracks, near Wakefield, by Dr. McKowen. No motive for the crime is given.

Dr. McKowen is in prison at St. Francisville.

All the evidence indicated that Judson had been killed, apparently by strangulation, some distance from where the body

was found. It is considered probable that an effort to burn the body to conceal identification was interrupted by the fear of the slayer that some one was approaching.

Marriages.

Dr. Thomas Newby White, of Belvidere, N. C., and Miss Jane Denson Pretlow, of Franklin, Va., were married in the Episcopal Church in Franklin on October the 20th.

Dr. White is a graduate of the College of Physicians and Surgeons, Baltimore, Md., having graduated from that institution in 1882. He is a prominent physician of Belvidere, where he and Mrs. White will reside.

Dr. Thomas Dubart Walker, Jr., of Cochran, Ga., a very popular physician of that place, and Miss Margaret Love Thornton, of Tallapoosa, Ga., were married at the home of the bride on October the 20th.

Dr. Walker graduated from the Medical Department of the University of Tennessee, Nashville, Tenn., in 1893, and since that time he has made himself a very popular practitioner throughout the state of Georgia.

Dr. E. Barbour Pendleton and Miss Virginia Hunter Goodman, both of Richmond, Va., were married October the 23rd.

Dr. Pendleton graduated from the Medical Department of the University of Louisville, Louisville, Ky., in 1889, and since that time has been very successful in the practice of his profession.

Dr. J. H. Thacker and Miss Mida Burton, both of Reidsville, N. C., were married on October 14th, which was quite an event in the social circle of that town.

Dr. Thacker is a very prominent physician of that place. He is a graduate of the Medica-Chirurgical College of Philadelphia, Pa. Class of 1889.

Dr. William Powell, of Petersburg, Va., and Miss Sara Breckenridge Early, of Lynchburg, Va., were married in the parlor of the Hotel Carroll in Lynchburg on October the 5th.

Dr. Powell is a prominent young physician and member of the Chamber of Commerce of Petersburg. He graduated from the University College of Medicine, Richmond, Va., in 1901, and since that time has been practicing his profession in Petersburg.

Dr. Frank O. Rogers, a popular and successful physician of Concord, N. C., and Miss Ella Tillar, of Little Rock, Ark., were married in Galveston, Texas, on October the 25th.

Dr. Rogers graduated from the University of Maryland School of Medicine, Baltimore, Md., in 1901. He received his license to practice medicine in North Carolina in 1901, and also joined the North Carolina State Medical Society in that year.

Dr. J. R. Paddison, of Oak Ridge, N. C., and Miss Zora Sapp, of Kernersville, N. C., were married at St. Leo's Hospital in Greensboro, N. C., October 28, 1909. The ceremony was performed immediately preceeding an operation for appendicitis which Dr. Paddison underwent successfully.

Dr. V. B. Cox, a very popular physician of Chester, S. C., and Miss Leila L. DaVega, of Chester, were married at the bride's home on October the 13th.

Dr. Cox graduated from the Southern Medical College in 1890, and since that time he has been a very successful practitioner of his profession.

Dr. J. J. Delambre, a physician of Lakeland, La., and Miss Blanche Major, of New Roads, La., were married September the 29th, at the home of the bride.

Dr. Delambre is a promising young physician, having graduated in medicine from the Medical Department of Tulane University in 1902.

Dr. E. F. Fenner, a young physician of Henderson, N. C., and Miss Louise Sampson, of Manchester, Va., were married in the Presbyterian church of that city on the evening of October the 20th.

Dr. Fenner is a graduate of the University of Maryland School of Medicine, Baltimore, Md., having graduated from that institution in the spring of 1905. He is a popular physician of Henderson, and has many friends there, and throughout the state, who wish for him and his bride untold happiness.

Dr. L. O. Mauldin, one of the most prominent young physicians of Greenville, S. C., and Miss Carrie M. Floyd, of Woodruff, S. C., were married in the Presbyterian church in Woodruff on October the 27th.

Dr. Mauldin graduated from the Medical College of South Carolina, Charleston, S. C., in the spring of 1903. He took a course with the Army and Navy in Washington, D. C., in 1904, and then took post graduate work in London, England, and Vienna, Austria, in 1905–1906.

He is a member of the American Medical Association, South Carolina State Medical Society, Greenville County Medical Society, and the Tri-State (Virginia and the Carolinas) Medical Association, and an honor-

ary member of the Pickens County Medical Society.

Dr. Mauldin has won great prominence in his the state of South Carolina. He and his bride will live in Greenville.

Dr. Peter McLean, a prominent young physician of Laurinburg, N. C., and Miss Alice Lee Elliott were married at the bride's home on Little River, N. C., on October the 30th.

Dr. McLean graduated from the Medical Department of the University of Maryland, Baltimore, Md., in 1906, and since that time he has been a very successful practicing physician. He received his license to practice medicine in 1607 and joined the North Carolina State Medical Society in 1908.

Deaths.

Dr. J. Meador Goldsmith, of Atlanta, Ga., and a very prominent physician of that city, was found dead in a room of a local hotel, where he had engaged lodging for Sunday night October the 23rd. It is believed that death was due to a hemorrhage of the lungs.

Dr. Goldsmith graduated from the Atlanta College of Physicians and Surgeons in 180 , and since that time has taken Post-Graduate courses in several Northern institutions.

Dr. W. A. Childress, one of the oldest and best-known physicians of Atlanta, Ga., died at his home, after a protracted illness, on October the 1st.

Dr. Childress graduated from the Medical College of Georgia, Augusta, Ga., in the year 1858.

Dr. J. M. Bearden, a physician of Ellijay, Ga., shot and killed himself October the 7th. It seems that the cause of which is unknown.

Dr. Bearden graduated from the Southern Medical College, Atlanta, Ga., in 1881.

Dr. C. R. Barham, aged forty-one years, died at his home in Boykins, Va., after an illness of several months.

Dr. Barham graduated in 1890, from the University of Virginia, Charlottsville, Va., and was very prominent throughout the state of Virginia.

Dr. O. E. Kauffman, one of the most promising young physicians of Louisiana, died at his home in Plaisance ou October the 7th. He was only twenty-six years of age, and a man of wonderful intellect. He graduated from the Medical Department of Tulane University in 1905, and since that time he has been practicing his profession in Plaisance, where he has met with great success as a physician.

Dr. Hammond Hampton Garner, originally of Darlington, S. C., died in the city hospital of Santos, Brazil, a few days ago.

Dr. Garner was 31 years of age. After his graduation in medicine from the University of Maryland School of Medicine in the spring of 1902, he began the practice of his profession in his home town. Soon thereafter his health became so impaired that it was necessary for him to seek a higher climate, so he settled in Brevard, N. C., and after a few years he removed from there to Hendersonville, N. C., where he remained until 1908. Then he was elected physician and surgeon on the ship Dextero, sailing between New York City, the West India Islands and Hamburg, Germany. There he remained until the latter part of July of this year, when on this voyage he became ill, and was placed in the hospital at Santos where he died.

Dr. Cleophas J. Ducote, a well-known physician throughout the State of Louisiana, died at his home at Cottonport October 26th. An apoplectic stroke was the cause of his death.

Dr. Ducote was very prominent in his profession, and was at one time president of the State Board of Health. He was also president of the State Medical Society.

Dr. Ducote graduated from the Medical Department of Tulane University in 1875.

The Trained Nurse.

Dr. A. Newman Dorland, of Philadelphia, recently delivered an address before a mass meeting called at Philadelphia to review the present system of training nurses; to consider the duties, obligations and limitations of nurses in the sick room. While Dr. Dorland's position is somewhat radical, and we do not agree with everything that he says, the article is of sufficient value to the nursing profession, and to the medical profession and really to the general public that we deem it proper to reproduce it in full.

Dr. Dorland says:

"I have no use for a trained nurse and would not have one of her kind in my house." Thus emphatically did a prominent lawyer in one of our great cities, president of the board of trustees of a large hospital, express himself to me recently.

Were it generally recognized, he but voiced a very common sentiment which has been growing at an alarming rate, and is already largely prevalent among the better classes of our people. It is with extreme

reluctance that I am forced to this admission. Foolishly closing one's eyes to an unpleasant fact, however, will not benefit the matter in the least. The naked truth, sooner or later, must be met, the causes for its existence ascertained, and the remedy applied, if one be found. Admitting the fact, as we must, therefore, what is the cause of this remarkable reaction in popular sentiment toward a calling which should command only the profoundest respect and heartiest sympathy of everyone?

There is but one explanation, and it is to be found in the attitude of the trained nurse herself. In making this statement I wish it to be clearly understood that I refer to the trained nurse as a class, and not to her individually, for I well know that there are many[1] noble and excellent women engaged in this humane vocation who are radically and practically opposed to the autocratic bearing of those fellow-women who are bringing down upon themselves and their calling the righteous indignation and resentment of a long-suffering people.

The attitude to which I refer, and which I shall presently elaborate, is intolerable in its every respect. It can be traced largely, if not altogether, to one chief source, namely, the malevolent influence very commonly exerted by the imported head-nurse upon the probationers and older girls in the training schools. I recognize that this is a startling statement, but I am speaking with a knowledge of things as they are, and I am prompted to do so with but one object in view—the befriending of the nursing fraternity. The welfare of this noble and very necessary calling is being jeopardized by defects in the course of training that can be, and must be, promptly righted if the growth of the popular antagonism to the trained nurse would be arrested. Therefore, the mincing of matters will not do. I believe the time is ripe for a bold, plain statement of facts.

The Imported Head Nurse.

It stands to reason that those who are, and have been, in control of the training schools for nurses throughout the country from the time of their establishment, must be responsible for the development of the system in vogue, its defects as well as its commendable features. This is a logical and necessary conclusion. It is also a well known fact that almost without exception in the larger institutions these dominant individuals have been foreign-born and foreign-bred women, who have even, in certain stances, so cleverly manipulated the governing factors of the hospitals in question as to include under their supremacy the superintendentship of the entire institution—an impossible state of affairs, let me add, so far as an independent and self-respecting medical staff is concerned. Now, what has been the outcome? The net result of the system of training evolved by these women after three decades or more of absolute control is appalling. The type of nurse as depicted in the beautiful characters of Florence Nightingale and Dorothea Dix no more exists, save in rare and isolated instances, than does today the noble red man of Cooper's fascinating tales. In her place we find ourselves confronted by a cold-blooded autocratic fraternity or close corporation, smothered in red-tapeism that apparently would sacrifice a life rather than break some inflexible and arbitrary petty law, whose main object appears to be commercialism, and from which it would seem that almost every sentiment of humanity had been obliterated. This organization is dominated and completely overshadowed by a few forceful spirits, for the most part imported from other lands, women of undoubted and unusual executive and organizing ability, who, it would seem, have thoroughly subdued and cowed the vast majority of the girls trained under the system they have devised. In no other way can be found an adequate explanation for the remarkable submission displayed by these girls under injustices that stir to the very utmost the spirits of those who acquire even a faint insight into the matter.

If you will, inquire of any observant physician who has been associated with these training schools in whatever capacity, and he will, if sincere, assure you that the imported head nurse has usurped an authority that is more absolute in proportion than that assumed by the autocrat of all the Russias. She domineers over the girls in training in a manner such as a similar number of young men would not countenance for a moment. (One illustration will answer. The daughter of a leading physician of a city of central Pennsylvania when slightly indisposed one morning was peremptorily ordered by her foreign chief to eat her "porridge" or leave the table—a command which she was woman enough to disregard until she had taken her coffee). She reserves to herself the right to allot to the matriculates separate and distinct careers according to her personal whims and fancies, and likes and dislikes, whereby some favored ones profit by an excess, and others under the ban of official disfavor suffer from a deficiency, in the practical courses afforded by the schools. She arbitrarily curtails or prolongs the course in training to suit her personal plans or to regulate the excess or deficiency in the number of matriculates without respect or consideration for the rights or convenience of

the individual girls; and she caps her authority by claiming the privilege of refusing a diploma after a long and tyrrannous course of training, to any or every nurse who in any manner, trifling or otherwise, may have incurred her displeasure. Her despotism is absolute; there is no court of appeal. It matters not that three years or more have been consumed in arduous, earnest toil. It matters not that the pressure of poverty is threatening, or that the girl may be looking forward eagerly to the time when she may bring her hard-wrought earnings to the support of her family. One dereliction of duty or one breach of an arbitrary hospital rule will annul all that has gone before, and the offending girl may be, and frequently is, summarily dismissed from the institution in disgrace. Is it to be wondered at that the number of native girls, imbued with the spirit of American independence and superlative womanhood, seeking admission to these training schools, has diminished remarkably in recent years, or that the average standard of mentality and moral tone of those who do matriculate is not all that the friends of scientific nursing would desire? Is it any wonder that those who weather the storm of tyrrannous abuse and win the coveted piece of parchment or official document suffer the inevitable reaction that such injustice engenders? Who can blame them altogether for fostering a feeling of retaliation which they can inflict only upon an inoffensive and supine public? Herein do we find the true explanation for the autocratic and offensive stand taken by a certain element of the nursing fraternity, and to this ultimate cause can all the distrous and distressing train of evils be irritably traced.

"*Mene Mene, Tekel, Upharsin.*"

What is the conclusion to which we are resistably driven? This only: The extant system of training to our schools of nursing has been weighed in the balances of time and results, and in many of its features has been found wanting. The final outcome of the mal-administration and mistraining of those who are in authority is an evil which threatens not only the flimsy superstructure they have erected but even the very foundations of the nursing fraternity as well. What are the results that obtain? Subjected to an ultimate analysis they appear as follows:

A lower standard of mentality and morality among the matriculates and graduates.

The almost total obliteration of the humanitarian aspect of the vocation.

A notable diminution in the number of applications for matriculation from the native American girls.

A remarkable and suggestive increase in the number of matriculates from other countries.

An irregularity in the individual course of training which is strongly suggestive of a medieval and irresponsible autocracy.

A commercialism among the graduate nurses which is more suggestive of class discrimination than is the most radical trade-unionism.

A growing popular antagonism to a calling which should be held in the highest esteem by the people of all classes.

As far as the imported head nurse personally is concerned, there are two main causes, as I see it, for the deplorable failure she has achieved, and probably the foremost and that of prime importance is the lack of affiliation between her and the students. Without exception, in my experience, she has not won the confidence and affectionate regard of the student classes. On the contrary, she is heartily disliked by all and abjectly feared by many. This, in and of itself, is a fatal error. Why this should be is beyond my province to state positively, but from my chance personal observations I should attribute it largely to the despotic administration which she has seen proper to institute and which I have already referred to.

Again, it is unfortunately true that these women, earnest though they may be in their love for their chosen calling, are very often weak enough to permit national ties to influence and even to master them. They seem to forget that they are aliens, mere sojourners in a strange land, with ostensibly but one object in view, and that the training of the native girls in their own adopted calling. Hence it comes to pass that in most of these training schools the Canadian girls and those coming from across the sea are favored in every possible manner. I am told by one who is thoroughly acquainted with the intricacies of the problem, that in one of the schools in a neighboring State, from 85 to 90 per cent. of the girls are of Canadian extraction. A physician of my own city who is connected with one of the prominent hospitals recently informed me that the foreign head nurse and superintendent of the institution astounded him by remarking: "Your American girls are utterly incapable as trained nurses. When I want a really good nurse I must send to Canada for her!" Such a statement, which, it is needless to say, is altogether without fouodation in fact, and as absurd as it is false, is an affront to American womanhood, and could be prompted only by a partisan feeling of nationality, which at once stamped the speaker as entirely unfit to the position she held. Be this as it may, the woman but typified her

class, which almost without exception is strongly influenced by national prejudice.

Errors in the System of Training.

In addition to these personal traits of the superintendents of nursing, which have done much to bring to pass the present unfortunate state of affairs, it stands to reason that mistakes should be made in the process of constructing a new system of nursing founded on modern scientific principles. Time alone can determine the value or uselessness of anything, and of a system or theory as well. That which promises well at the outset may result disastrously in the long run. Therefore, there are to be found in the system of training, as now advocated, certain glaring faults demanding immediate correction or elimination in order that a degree of perfection may be attained.

In a recent address delivered before the graduating class of the Philadelphia School for Nurses I took occasion to call attention to some of these evils.

It is my desire at this time to enlarge upon these defects, and to point out, as far as this may be possible and practicable, the remedy—which, let me emphasize, must be radical in order to eliminate the canker which is marring and even threatening to destroy one of the noblest aspects of Samaritanism in the world.

The Education of a Nurse.

In the first place, then, the education of nurse does not mean a comprehensive instruction in the arts of scrubbing, washing and the other ordinary kitchen duties. Yet how often do we see from five to ten months or more consumed in just such menial labor as this? Frequently has my indignation burned when I have seen sweet and refined young girls who came from homes of culture and dignity compelled to perform tasks which they had never dreamt of when at home, which they would never be called upon to do after their graduation and which would bear no more relationship to their education as trained nurses than would a knowledge of horse-shoing or of cobbling. And somehow I never could quite free myself from a lurking suspicion that there was an economic reason behind it all, and this suspicion was largely confirmed when I noticed the conspicuous lack of hired help in such institutions.

Of course, this extra and altogether useless work, so far as concerns the actual training of a nurse, consumes time which can only be taken at the expense of the matriculates, and ultimately and indirectly of the patients. The course of training is thereby unnecessarily lengthened by at least one year. And to what purpose? None whatever, save a curtailment in the running expenses of the institution which will make a somewhat favorable showing at the expiration of the fiscal year. Can this in any sense be construed to represent a square deal? Just as appropriate, it seems to me, would it be to add to a course in medical training an extra year in which the students would be compelled to clean and polish medical in surgical instruments and other paraphernalia, and then claim that thereby the preparation of the students for the practice of their profession is the better and more thorough. And just as consistent would it be to condemn as inferior and mediocre all other colleges which did not countenance this imposition upon their student bodies and proclaim these institutions as affording courses of instruction of a lower standard than that set by them. I enter a hearty protest against this injustice to our student nurses, who have entered a training school, as they believed, and have not matriculated in an employment agency.

Again, it is not necessary that a nurse should acquire an extensive medical education equal to at least a two-years' course in a medical college. She is not to become a poor doctor, but the best of nurses, and rest assured there is a vast distinction between the two.

This, I believe, may be regarded as axiomatic—that good nursing is not facilitated by too elaborate an education in professional matters; rather is it hampered or even rendered useless thereby. A superficial knowledge of physiology and anatomy together with a thorough acquaintance with hygiene, will answer every purpose. It is just as well that the nurse should know that the femur has nothing to do with the arm, but it is beyond her province to expect her to accurately set a broken limb. Every nurse should know that there are certain disease-bearing or disease-producing germs, and that these may be, and generally are, carried by means of unclean hands or instruments; but, as I see it, it is not essential for her to trace the life history of a bacillus, nor to enumerate the pyogenic germs, nor will it aid her nursing in the slightest degree to know that the bacillus bremensis febris gastrica will produce symptoms closely resembling typhoid fever, but in which the Widal reaction cannot be obtained. A fair knowledge of pharmacy however, together with the ability to quickly and accurately make percentage solutions, is an excellent adjuvant to the ability to record a temperature, a pulse-rate and a pulse-respiration ratio. If, in addition, a course of instruction in nursing is engrafted upon a fair general education and this is backed up by a heap of common sense, then may we expect to find a capa-

ble nurse—provided she has the nursing instinct. For, let it be borne in mind that not every girl is cut out to be a nurse any more than is every man constituted physically or mentally to be a physician. A good nurse is born, not made

Some one has defined the functions of a nurse as follows: "To care for the bodily needs of the patient; to carry out the physicians' orders; to keep a careful record of the happenings of the sick room as regards the vital phenomena of the patient. Everything that the nurse needs to do or know may be grouped under one of these three functions, and any teaching that contemplates anything beyond this would merely burden the nurse with useless theory inspire her with the erroneous and fatal idea that she is endowed with the knowledge and skill of the medical attendant." Is it necessary for any woman blessed with the average gifts of brain and common sense to spend three or four years in acquiring a nurse's diploma when this all that will be expected or required of her? Why, then, is this asked of her, and an intricate and altogether useless curriculum imposed upon her, and often at the expiration of this long and tedious course a diploma denied her because of some breach of a petty hospital regulation arbitrarily laid down? I fear there is an economic reason attached to this, as well, and I enter a protest against such unfair dealing as this on the part of institutions against young girls who come to them in all good faith to acquire instruction in their chosen vocation. I do not think it is a square deal.

The Training of a Nurse.

The training of a nurse is quite a different matter. A nurse may be over-educated; one can never be over-trained. Just as absurd would it be to state that a surgeon is over-skilled or a physician over-expert in his methods of diagnosis. The more training and experience a nurse can acquire, the better for her and for her patients: and the prolonged hospital courses that are required of her in so many of our training schools consisted mainly in bedside, ward and out-patient instruction, I should be the last man in the world to breathe a word of remonstrance—save this: She might have speedier financial returns were her instruction-period not so unnecessarily protracted.

Even in this question of the training of nurse there is a grievance which is most pernicious in effects upon the moral of the institutes. I refer to their irregularity the course of training. Not so much do mean the irregularity in the curriculum one training school as compared with that of another, although I believe that there should be a general system adopted, as far as that may be practicable, even as there is in the various medical colleges. Rather do I refer to the flagrant irregularities in the individual course, whereby one favorite nurse profits by an excess of bedside or out-patient instruction, and another draws in the lottery of favoritism a special career as clinic nurse, while a third bears the brunt of official disfavor and rounds out her career as a hospital drudge. Nepotism or favoritism in any of its aspects is most pernicious. Any girl matriculating in a training school should enter with the assurance that she is to profit in every respect according to the facilities afforded by the given institution. Religious creed, nationality and the personal equation bear no relationship whatever to the course of instruction. An impartial administration must be expected; and let me emphatically state here that this impartiality can be demanded and insisted upon by a proper and respectful co-operation on the part of the student body. It is its just right, and the favoring of one student in any respect should be regarded as a dangerous precedent, and should not be tolerated by the student body itself nor by the board of directors of the institution.

The Result of the System.

The ultimate result of such a course of mistraining as that which is here depicted is the objectionable attitude assumed by the average graduate nurse, reference to which has been made in the opening paragraphs of this paper. This attitude is characterized (1) by an offensive and autocratic bearing in the home which is a detriment to the peace and welfare of the family and which emanates entirely from a mistaken exalted idea of the importance of her calling; (2) frequently by an illy-concealed antagonism to the attending physician with a tendency to neglect or openly to oppose and counteract his instructions; (3) by a notable and lamentable disregard of the high standard of ethics which has ever dominated the medical profession in all lands and ages; and (4) by an open bent toward commercialism which is fundamentally and radically opposed to the humanitarian motive which, as is generally understood, prompted the founding of the nursing fraternity.

Because of this unpleasant attitude has sprung up the sentiment of popular disfavor which is being expressed more and more emphatically against the intrusion into the home and family circle of the modern trained nurse. It is with the earnest desire to offset the trend of the popular mind, and to arrive, if possible, at a satisfactory solution of the question that this paper has been prepared.

Now, let me ask in all good faith, have I not proved the friendliness of my attitude toward the trained nurse? I am her friend, in very truth. I sympathize with her from the bottom of my heart. Her life is a hard one, beset with physical perils. Is it any wonder, when we come to consider her prolonged immurement in the sick room, the constant inhalation of germs and that their noxious, putrefactive products, the loss of sleep and the irregularities in her diet—is it any wonder, I repeat, that she so frequently succumbs to disease or finds it neccessary to seek retirement for protracted periods to recuperate her shattered nerves?

It is, then because I am the friend of the nurse that I feel actual regret when I see her yielding to temptations that imperil her high calling. It is because I am her friend that I feel prompted to remonstrate, in a kindly way, with her, when I see her tottering over pitfalls that can work her only injury and injustice. And so, when I come to speak to her of some of these faults on her part, I do so not uncharitably, but with a real desire to render her some assistance over the hard places in her career.

The Growth of a Nurse.

The growth of a nurse, therefore, is the very necessary and logical subject to which I would now direct your attention. A nurse has acquired her diploma, and is entitled to offer her services to afflicted humanity. What does she often do? Alas! If you look opposite her name in the nurses' directory in which she is registered, you will find the startling legend, "For twenty or twenty-five dollar cases only!" With one stroke she annihilates the years of experience that one would deem essential, and leaps at once into the seats of the mighty in her profession. It matters not that her wiser sister has been devoting her energits to her calling for five or ten years, and now claims her right as a twenty five dollar nurse. Has she not a diploma? Therefore it is her privilege to demand the highest remuneration her profession affords. So she argues. How many young doctors, think you, can claim five or ten dollars per visit the first few years of their professional careers? How many surgeons can place the bold-typed card upon their mantel-pieces, "$500 cases only?" I believe the nurse earns all she can get, and even then is not well paid. But hers is also a humane calling, and when see stamps it with a mercenary mark, then she drags it from its high pedestal and wrongs herself and it. I know many physicians who have expressed themselves as unwilling to recommend a nurse who registers herself in this manner. "If she will not take the fifteen-dollar case," they say, "she shall not have the twenty-five-dollar case." Honestly, I think they are right.

The growth of a nurse is naturally, and should be recognized as a process of evolution. If there is not this improvement, this evolution, with the lapse of time, then is there something radically wrong. Therefore I enter a protest—in the kindliest spirit, I assure you—against the autocracy of those trained nurses whose spirit is hard and mercenary and whose slogan is "do the public —good."

Lest there be some who think I am mistaken in this matter, permit me to quote the schedule of prices advocated by these mistaken enthusiasts, and printed in an organ of the nursing fraternity (American Journal of Nursing, Vol. III, No. 2, page 886) "Acute diseases, $25 per week, maternity cases, $30 for the first week, $25 for succeeding weeks, unless there are two nurses when $25 per week each, will be charged for the entire time; nervous cases, $30 per week; contagious cases, $30 per week; for attendance at an operation, or one day' engagement, $5; from two to six days, $ per day." Then, with a grim sense of humor worthy of a Carlyle or a Swift, as special concession the very generous statement is affixed: "No extra charge is to be made for attending to the body after death."

I appeal to my hearers. What could be more cold-blooded and revolting than this As some one has written, "Arguments may be brought forward to justify trades-unions in the commercial world, but the most case hardened and reckless agitatator and striker would shrink from trading in the blood and sufferings of humanity." If the same principle should be adopted by the medical profession and invariably lived up to, the poor and middle classes would be entirely deprived of medical attendance, save that afforded by hospitals and eleemosynary institutions. No greater instance of class distinction—against which socialism and the unions are raising their earnest protest —could be imagined. Therefore, I beg of my hearers, in the name and for the sake of humanity, to concentrate their influence against such commercialism as this.

State Registration of Nurses.

There is one other matter on which I desire to speak a few words in closing. I refer to the recent agitation in a number of states on the question of the registration of nurses. Let me say at the ont-start that I do not think the time is ripe for such a movement on the part of the nursing fraternity. However it may eventuate, today the finger of public opinion points unequivocally away from such a procedure as the Sound the views of the level-headed in the

community, if you will, and you will find, if I mistake not, a strong feeling permeating all the social strata antagonistic to anything which savors of trade-unionism among the learned professions, including the nursing and this movement for registration is deeply dyed with such a taint.

It will be of general interest to note that the idea of state registration is not indigenous here but is purely exotic, having taken its origin among the women sojourning in this country from this British Isles, where, by the way, I notice it has also stirred up a violent storm of protest. It is also well worth noting that its most ardent advocates in this country are the imported head nurses—a fact which, in and of itself, in the light of all the disastrous results to which I have here called attention, should at least lead to cautious inquiry into the matter, and entail a slowness and deliberation of action. It is, probably, the strongest weapon these women can bring into play in order to perpetuate their hold upon the nursing fraternity in this country. Personally, I do not hesitate to declare myself as emphatically opposed to the movement, and I can safely add that the medical profession as a whole is opposed to state registration of nurses in any form. The felling, however, is not confined to the medical men by any means. The Honorable William N. Ashman, President judge of the orphans' court of the city of Philadelphia, while speaking on this subject, said: "It has been urged by some of the friends of the proposed law" (the state law for licensing and registered nurses) "that to meet the demand of people of moderate income for skilled nursing will lower the rate of compensation, since the average citizen and the poor have not deep purses. This seems to indicate that the real reason for appealing to the legislature is not a question of the welfare of humanity, but a matter of dollars and cents. The public good cannot be held in abeyance for the sake of private gain. Civilization has advanced too far to admit of capitalization of the sufferings of humanity. The interests of the sick man were safeguarded when the state licensed and appointed the physician as the absolute authority in the sick room. When two generals with equal authority attempt to manipulate the same army, the battle is generally lost." Such is the opinion of an eminent jurist of the land.

The distinguished professor of medicine in Cornell university, Dr. W. Gilman Thompson, for whom I entertain the profoundest respect and admiration, has recently said (New York Medical Journal, April 28th, 1906): "We are in the hands today in this state (the state of New York) of a nurses' trust. There is no more real need of state examination and registration of nurses than for the examination and registration of a group of persons employed in any one of the liberal arts." He then proceeds to add, as a further protest against the injustice of the whole matter that the "unfortunate patient is compelled to pay the same rate for the poorest nurse that is demanded for the best, and that patients of moderate means must pay the high price for a nurse or do without." A physician of my own city recently asked one of these women who was heartily advocating this stand on the part of the nurses, what the people should do who were unable to pay such a price and received the stern reply: "Let them do without!"

It will not be necessary for me to quote further from the views of men of distinction in their chosen professions. I have read the criticisms of many of the medical men of my own state upon the proposed act. They all sounded no uncertain note. Many of them were most amusing, and some were more positive than polite. As I have intimated throughout this paper, I am heartily in favor of fair play for every one, including the nurse. I believe, therefore, that such an act as that which has been contemplated in various states of the union authorizing the state registration of nurses is unfair to everyone, including the nurse; that it is unwise at the present time and in view of the recognized trend of public opinion; that it is contrary to the humane spirit which is supposed to actuate those engaged in alleviating the sufferings of mankind, and that it is uncalled for from whatever point of view it may be regarded. Thus do I publicly place myself on record, and I appeal to the public to give the matter careful and judicious consideration before permitting an endorsement of a movement that readily work a lasting injury to the noble vocation of the trained nurse.

The Remedy.

Such is the pernicious system of training for nurses in vogue in this country, these are its originators and supporters, and these the results of three decades of trial. What now is the remedy? Far be it from me to do it otherwise than to offer a few suggestions as follows:

First and foremost. The abolition of the imported head nurse, and the substitution in her place of native women trained at home and from the undesirable traits of the prevailing system.

Secondly. A curtailment of the course of training so that it shall not in any instance exceed two years. Already, I understand, has such a step been taken in Chicago and elsewhere.

Thirdly. The elimiuation from the course

of all unnecessary medical, surgical and other instruction which does not pertain to the proper education of a nurse, and which has apparently been incorporated with the obvious purpose in view of unduly prolonging the course in order to hold the services of the marticulates, or to enhance in their minds the importance of their chosen calling. Moreover, it stands to reason that the elected courses of instruction should be given by teachers of large practical experience and not by immature young medical graduates.

Fourthly. The just regulation of the course of training so that each and every matriculate shall be assured of a systematic equalization of the hours of instruction in the various branches.

Fifthly. The shortening of the daily periods of service for the individual nurses so that these shall not exceed six hours at a stretch, and the insistence upon a regular rotation of service for the girls. This will correct the obvious evil of a continuous service of from twelve to eighteen hours, as is frequently insisted upon at present, and often to the lasting injury of the nurse or patient, or both.

Book Notices.

The Diseases of Children. By Henry Enos Tuley, M. D., Professor of Obstetrics, University of Louisville, Medical Department; Visiting Physician Masonic Widows' and Orphans' Home; Secretary of the Mississippi Valley Medical Association; Ex-Secretary and Ex-Chairman of the Section on Diseases of Children, American Medical Association, etc., Louisville, Ky. Illustrated. Baltimore: Southern Medical Publishing Company. 1909.

This book has been written with the needs of the general practitioner and student in view, and the diseases of children have been described as they are seen by the busy practitioner in his daily rounds. On account of the belief of the author that the question of infant feeding is one of the most important which confronts us, more space has been devoted to that subject than is given other important ones. He wishes to interest the general practitioner in milk, its care and handling.

Each disease is considered in a methodical manner. Special attention is given to the dietetic and hygienic management, and the medicinal treatment is considered quite fully with the reproduction of many tried formulæ. These have not been printed as a suggestion that the disease be treated by rule, but that the combinations of the various drugs indicated, as used by the recognized specialists of today, may be seen.

The chapters dealing with the diseases of the eye, ear, nose and throat, and the skin are quite instructive.

Reproductions of temperature charts have been inserted in a number of places, with the hope that this valuable aid will be more often employed in private practice than it is at present.

This book contains many instructive illustrations. It is beautifully bound in cloth, well indexed and contains 653 pages, printed on a good quality of paper.

Philadelphia General Hospital Reports. Volume VII. 1908. Edited by Herman B. Allyn, M. D. Philadelphia: Printed by Dunlap Printing Co. 1909.

Many important changes in the hospital and its management have been made since Vol. VI. was issued. The hospital is now called the Philadelphia Hospital for the Insane, and the Philadelphia Home for the Indigent, which are now in course of construction. A tract of ground has also been secured at Byberry, where it is intended to remove tuberculous patients.

The increasing number of patients has made it necessary to have more Resident Physicians. There are now thirty Medical and two Dental Internes.

This book contains 272 pages and is neatly and well bound in cloth, It also contains several interesting illustrations.

Studies in Rabies. Collected writings of Nathaniel Garland Keirle, A. M., M. D. D. Sc., Professor of Medical Jurisprudence and Emeritus; Professor of Pathology College of Physicians and Surgeons Director of the Pasteur Institute, Baltimore, Md. Baltimore: The Lord Press 1909. Testimonial Edition.

This book contains a well brought out introduction by William H. Welch and a biographical sketch of the author by Harry Friedenwald, which are very interesting. This volume is a collection of writings on rabies published by a committee in behalf of the author's friends. The engraving of the author in the first part of the book is very good indeed.

This book is neatly and well bound in cloth, carefully indexed, and contains 38 pages of very instructive reading matter.

Text-Book of Hygiene, a Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint, by George H. Rohe, M. D., Late Professor of Therapeutics, Hygiene, and Mental Diseases in the College of Physicians and Surgeons, Baltimore, Etc., and Albert Robin, M. D., Professor of Pathology, Bacteriology and Hygiene, Medical Department Temple University, and Philadelphia Dental College; Bacteriologist City Water Department, Wilmington, Delaware; Member American Public Health Association, Society American Bacteriologists; Corresponding Member International Society for the Prevention of Tuberculosis, etc.; Formerly Pathologist and Bacteriologist Delaware State Board of Health. Fourth revised and enlarged edition with many illustrations and valuable tables. Philadelphia: F. A. Davis Company, Publishers. 1908.

The advances made in hygiene and sanitary science, more especially in the field of causation and prevention of infectious diseases, made it necessary to subject this well-known and popular text-book to a thorough revision. Several of the chapters treating of subjects in which the discoveries were more recent were entirely rewritten, while others were brought up to date by including such matter as appears essential in the light of recent advances.

The aim of the editor has been to preserve in the book the qualities which made it one of the most popular text books on hygiene in the English language.

As no one man can be a specialist in all branches of hygiene and sanitation, it was necessary to secure the assistance of other men. This had been done by the author in the former editions of this book, and the plan has been followed by the editor in the present edition, with this exception, however: in the present edition credit to the several eminent contributors is given in the preface.

Dr. Walter Wymann, Supervising Surgeon-General, U. S. Public Health and Marine-Hospital Service, has revised the chapter on "Quarintine." The chapter on School Hygiene," "Exercise and Training," "Baths and Bathing," and "Clothing," grouped together with one chapter heading "Personal Hygiene," were prepared by Dr. Francis W. Upshur, lecturer on pathology, hygiene, public health and dietetics in the University College of Medicine, Richmond, Virginia. The chapter on "Military and Camp Hygiene" was entirely rewritten throughout by Walter D. McCaw, Surgeon-Major Medical Department Surgeon-General's Office, Washington, D. C. The chapter on "Naval Hygiene" also was entirely rewritten by Henry G. Beyer, Major Surgeon United States Navy and professor of hygiene, etc., in the United States Army and Navy Medical School, Washington, D. C.

The other chapters were revised aad supplemented by the editor. We feel confident that this edition will be favored with the same cordial reception accorded the former editions by the students and teachers throughout the country.

Manual of the Diseases of the Eye for Students and General Practitioners. By Charles H. Hay, M. D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department Columbia University, New York, 1890-1903; Attending Ophthalmic Surgeon to the Mt. Sinai Hospital, New York; Consulting Ophthalmologist to the French Hospital, to the Governeur Hospital, to the Red Cross Hospital, and to the Italian Hospital, New York. Sixth edition, revised, With 362 Original illustrations Including 22 plates, with 62 colored figures. New York, William Wood & Company, publishers.

The fifth edition of this manual appeared in August, 1907, and was reprinted in August, 1908. At this early date, the sixth edition appears. In this edition the author desires to state that every page has been carefully examined and many alterations have been made, and many paragraphs have been added on subjects such as Transilluminatiou, The Conjunctival Tuberculin Test, Cerebral Decompression, etc.

The volume is thoroughly up-to-date. It has, however, not been increased in size. The original plan of presenting a book for the student and general practitioner has been strictly adhered to.

The price of this book is $2.00 net.

Physiology for Beginners. By Walter Moore Coleman, A. B., Author of "Elements of Physiology," etc. With an appendix on Nature Study. New York, The Macmillan Company. 1908.

This little book contains 192 pages. It is neatly bound in cloth, and contains a great many instructive illustrations. This book is taken up chiefly with inculcating practical truths concerning the health, most of the difficulties of the important science of physiology being deferred for later study.

The main object of this book is to bring the study of physiology nearer to the life of the community, and especially to the life of the child, for no other study has any better

opportunity to connect school and society. The book also tells to some extent, the elementary actual history. This is in order that the work may in part supply a connecting link of the primary grades and the biology of the high school.

Altogether. we think that the writing of this book will be the cause of a great deal of good.

The Practice of Medicine—A text-book for practitioners and students with special reference to diagnosis and treatment, By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania and Physician to the Hospital of the University; Physician to the Pennsylvania Hospital; President of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Fifth edition, revised and enlarged with five plates and 245 illustrations. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut Street. 1909.

The usual effort has been made to place this edition abreast of the requirements of a new edition. This has not been altogether easy. In the first place, it is most important to keep a text-book within reasonable limits, while the literature on the disease considered has become so large that it is often difficult to decide what is truly new knowledge and worth including. It takes quite a long while to see a book of the size of this through the press, and it not rarely happens that new facts arise too late to be availed for a given edition.

As to actual additions, the infectious diseases have been revised, diseases of the blood have been worked over, and the treatment of tuberculosis has been modernized; that with tuberculin has been elaborated by the assistance of Dr. Trudeau and Dr. Baldwin, of Saranac. The opsonic index has received as much attention as it seemed to deserve. The importance ef blood cultures has been emphasized.

The subject of diseases of the stomach has been enlarged and a section on testing for occult blood by the late lamented Dr. J. Dutton Steele added. Cammidge's paucretic reaction has been inserted. Additions to diseases of the circulatory system are many and include an elaboration of the Adams-Stokes syndrome, and enlargement of the space devoted to pericarditis.

Tetany and Exophthalmic Goiter have been largely rewritten, with the assistance of Drs. John Rogers and Silas P. Beebe on these affections. Dr. Rogers has himself written the paragraphs on the treatment of Graves' disease by the anti-serum.

In the nervous diseases, Marie's new views as to aphasia have been inserted and amaurotic family idiocy and congenital hypotomia have been considered. A short sketch of zherpes zoster is included. Wassermann's reaction is inserted under syphilis of the nervous system because received too late for insertion under syphilis.

The price of the book is $5.50 net. It contains 1438 pages, It is completely indexed, beautifully bound, and contains many attractive illustrations. The work is certainly up-to-date, and is complete in every detail as any work of the size now on the market.

Atlas and Epitome of External Diseases of the Eye. By Professor Dr. O. Haab, of Zurich. Edited, with additions, by George E. deSchweinitz, M. D., Professor of Ophthalmology, University of Pennsylvania. Third Revised Edition. With 101 colored lithographic illustrations on 46 plates and 244 pages of text. Philadelphia and London: W. B. Saunder-Company, 1909. Cloth, $3.00 net.

This book filled a well defined want when it was first published a few years ago. It still meets this demand and its continued and well deserved popularity is attested by the publication of a new edition. The subject matter has been brought up to date and some new chromo-lithographs have been added. This volume has proved of great value both to those who study and those who teach ophthalmology and no doubt this new edition will continue to be eqnally valuable. Not only is the book excellent as to illustrations and subject matter, but it is published at a very reasonable price so that it readily comes within the reach of medical students, while the majority of other atlases are so expensive that the price is prohibitive to most students and many physicians.

Abstracts of the Leading articles of the month.

The Treatment of Lupus Erythematosus, —Morris, in the London Medical Lancet, says that there is no specific for lupus erythematosus. The guiding principle is that internal remedies should be used when the disease is associated with vasomotor disturbance in the extremities, and where there is evidence of autointoxication by poisonous substances circulating in the blood. External applications are to be relied upon only when no signs of systemic disturbance exist. The treatment is therefore constitutional or local; often both may be required. Any disorder of metabolism, or disease of the kidney or liver, must be dealt with by appropriate measures. The

bowels should be carefully regulated by means of saline aperients in the morning, together with occasional small doses of calomel. Antisepsis of the mouth and teeth is very important. Anything that is apt to give rise to flushing of the face is contraindicated; for this reason alcohol should be absolutely forbidden; curry and other heating condiments should be forbidden. Coffee, tea, and tobacco should be avoided. Conditions indicative of lowering vitality should be treated on general medical and hygienic principles. Where the circulation is defective, as evidenced by liability to chilblains and the other conditions, the patient should if possible spend the winter in a warm climate. The diet must be carefully regulated so as to minimize the risk of disordering the digestion or loading the intestine with materials that may form a favorable soil for infection. Salol in doses of ten grains, three times a day, may be given after each meal; salicin and bismuth in tablet or in pill are often useful. They may be combined with quinine, but this drug should not be given in cases where there is a tendency to chilblain circulation. Dr. Morris has not observed any particular benefit from arsenic, which is recommended. Belladonna is of use in middle aged or elderly people. Ergotin, the author says, is not serviceable. Where there is any abnormality of circulation he gives ichthyol internally, as recommended by Unna; it not only regulates the circulation, but acts as an intestinal disinfectant and prevents the formation of gas. In certain cases at the period of the menopause, when ichthyol has failed, he has given small doses of opium, beginning with 1-30th of a grain in pill, three times a day, and gradually increasing up to doses of one-fourth of a grain. Adrenalin may be of use for the same purpose. In some very acute cases of lupus erythematosus he has had good results from the use for short periods of exclusively meat diet washed down by copious draughts of hot water. This cleanses the intestinal tract by preventing the formation of gas which is produced by farinaceous substances, and promotes the elimination of waste products by flushing the kidneys. In acute cases the meat and hot water may be continued for ten days at a time. Calcium chloride has been found by some beneficial in the treatment of chilblains, and on the ground of its alleged action on the circulation it might possibly be of advantage. The high frequency current is often of service, chiefly in promoting metabolism and maintaining a healthy state of the intestine. In general terms it may be said that the patient should lead a healthy outdoor life as far as circumstances will allow. In regard to local treatment, it may be said generally that in the early stages active interference often does harm. Here careful study of the idiosyncrasies of the patient and the peculiarities of the disease is especially necessary. In the hyperæmic stage, cooling lotions (calamine, subacetate of lead, etc.) should be applied. No ointments should be applied. No ointments should be used as a rule. Hebra's soap rubbed in with flannel or lint is useful for the removal of scales and the protection of the surface. Ichthyol in the form of a lotion has almost a specific action on the circulation, and is the most useful of local remedies. Among other topical applications which may be found beneficial in individual cases are resorcin (10 per cent. in collodion); salicylic acid (3 to 6 per cent. in collodion), and pyrogalic acid, applied in the form of a plaster. These applications should be used when the disease is very chronic. Resorcin in particular is apt to cause blistering if used in strength; it should therefore never be applied to inflammatory patches. Iodine liniment is also useful, especially when combined with quinine internally. Compression by collodion he has not found of much use. In the case of small patches, linear scarification or light touches of the thermocautery often give good results. A dressing of iodoform or a salicylic acid plaster mull should be applied afterward. In chronic cases he has used the Finsen light with success. In acute cases the light treatment does harm, and its effects should always be carefully watched. These agents, which are apt to be injurious in the early stages, are particularly useful in the later stages, when there is thickening of the integument. X rays have, in his hands, proved uncertain. Radium may be applied to limited areas. In short, the object aimed at in using these agents is to set up a certain amount of local reaction. Hence they should never be used when there is acute inflammation. At present there are no rules to guide us in the selection of the particular agent; one will succeed where another fails. They must therefore be used more or less empirically.

Meat Broths for Infants.—W. Stoeltzner (Medizin Klinik) has obtained excellent results, in the case of infants brought to him with gastrointestinal symptoms due to a diet of flour foods and sugar, by putting them on a mixture of milk and meat broth. Bretonneau in 1818 first attempted to feed young infants suffering from atrophic chronic gastrointestinal symptoms on milk mixed with broth instead of with water; since that time the system of inrant feeding has never fallen into absolute disuse in

France, some doctors recommending it, as did Bretonneau, only for atrophic infants, others for any infants for whom breast feeding was not obtainable. In Austria, Mayer in 1850, Monti and v. Huttenbrenner later, have all advocated the dilution of milk by broth, Monti for children with rickets, and v. Huttenbrenner even for new-born children. In Germany A. Steffen recommends a mixture composed of 50 grammes of milk, 50 grammes of meat broth, 1 teaspoonful of cream, and 3.8 grammes of milk sugar as an infant food, failing human milk.

Although from time to time the use of meat broths as a diluent of milk for infants has been recommended, it has never become widely popular. Stoeltzner, in the present article, describes his own experience and finds that meat broth is indicated for cases of "tabes mesenterica," or atrophy, caused by a diet. He reports fourteen such cases, one of them dating back to 1905, the other thirteen belonging to the years 1907 and 1908. The broth used was made from beef or veal, and was of ordinary medium strength; sugar was never added to the mixture. The relative strength of milk and of broth in the mixture varied according to the case. The average age of the children was five months, with an average weight of 4055 grammes (9 pounds approximately). Seven of the children had never been breast-fed, the other seven had been breast-fed on an average for 2.7 months. The length of time of feeding on flour food was not less on an average than two and a half months. Eight children during the whole of this time had not been given any milk at all; six had received small amounts of milk along with the carbo-hydrates; to this group belonged one child fed on Nestle's food and three on condensed Swiss milk. Eight out of the fourteen children suffered at the beginning of treatment from diarrhea, which in some cases had persisted for weeks and months. Six children were in an especially sevrious condition: two of them showed pronounced myotonia; one obstinately refused food. One child at three months weighed only 2970 grammes (6½ pounds approximately). Unfortunately, in nine cases the treatment was only carried out for a short time; but even these cases served to show that diarrhea, when present, quickly stopped when feeding with the mixture of milk and broth was begun. In six out of the nine cases a gratifying increase in weight became evident; of the remaining three, one child during the time of the diet suffered from an influenza-like feverish attack, a second did not take enough food, a third soon after the beginning of the treatment began to have dry, crumbling stools. The course in the five cases which remained longer under treatment was very favorable; immediately or soon after the beginning of treatment the weight in each case began to go up, and the further increase left nothing to be desired.

Although the whole number of cases is not large and they all belong to the hospital class, yet the results were so clear that the author finds himself justified in considering that the symptoms due to a flour-food diet form an indication for the milk and meat-broth diet. Further information is needed as to how long the diet should be persisted in. Two of the cases appeared to indicate that the milk and broth mixture was only of value for a few days, and that some children could after that return to milk and flour mixtures.—British Medical Journal.

Tubercle Bacilli in Caseated Lymph Glands.—Weiss (Muencher Med. Wochenschrift). The investigations of the writer were limited to the study of caseated lymph glands in children, more especially mesenteric lymph glands; in two cases, the bronchial lymph glands were studied. The Ziehl staining of smear preparations gave exclusively negative results, while the Gram staining resulted positively in every case. The granular form of tubercle bacilli also appears latent in caseated gland contents; in only one case were numerous acid-fast bacilli demonstrated following the Ziehl method of staining, while after Gram staining, numerons granular bacilli were found. Weiss is of the opinion that the entirely negative result of Ziehl staining, and the positive results of the Gram staining speaks for the Bovine type of tubercle bacilli, which apparently lose their acid-fast covering more readily than the bacilli of the human type.

Cholin and its Connection with Epileptic Fits.—Handelsman (Deuts. Zeitschrift f. Nerneoteil) reviews and investigates this question. Krainsky stated that just before an epileptic fit 25 cg. of uric acid was retained in the organism. He prophesied the fit by the uric acid output. He produced fits in rabbits by injecting the patients' blood. Caro came to the same conclusions. Cerni, Onuf, Lagnasso, Vries, Gehartz, Collotian and others have worked at the subject. Donath came to the following conclusions: 1. Uric acid has nothing to do with the production of fits. 2. Ammonia salts produce fits. 3. Fits are constantly produced by ammonia bases as trimethylamin, cholin, creatinin and guanidin. 4. Potassium salts paralyze the heart and produce fits due to suffocation. 5 Lactic acid is not present in the cerebro

spinal fluid of epileptics. Later Donath injected whole brain into the little animal intraperitoneally with no effect. He injected animals with 10 per cent. sol. cholin and neurins and got typical fits. Buzzard and Allen did the same with the following conclusions: 1. Repeated small injections produce neither fits nor paralysis. 2. Larger doses produce fits, but the dose must be very much greater than is ever found present in the cerebro-spinal fluid of epileptics or paralytics. 3. It is impossible for the fits of epilepsy to be due to this cause. Handelsman injected guinea-pigs, and concludes as follows: 1. Subdural, or intracerebral injections produce fits which are not quite like epileptic fits. 2. The symptoms were only produced by doses much higher than the amount found by Donath in the human cerebro-spinal fluid. 3. A single intravenous injection of cholin, even in a very large dose, produced no effect. Handelsman next reviews the many chemical methods which have been used for the detection and estimation of the salt. He reviews the work of Mott, Halliburton, Gumprecht, Donath, Otolski, Hammarslei, Salkowski, Maruzzi, McLean, Stauck, Rosenheim, Kaufmann, Kutcher, and many others. He criticises the methods and modifies them. His chemical investigations led him to the following conclusions: "In all probability no cholin is present in the cerebro-spinal fluid or in such small quantities as to be chemically unmeasurable," and he therefore concludes that "probably cholin plays no part in the production of epileptic fits in man."

Puerperal Fever.—Zangemeister (Beihefte zur Med. Klinik.) defines puerperal fever, deals with its causes, with the different paths by which the infective processes may spread, and with the diagnosis, prognosis, and treatment of the different forms of the disease. The most important forms of lymphangitis puerpealis, for the diagnosis of which the distinguishing facts are given, are (1) endometritis puerperalis, (2) parametritis exsudativa, (3) the most severe form leading quickly to peritonitis and general sepsis; it is to be remembered that with peritonitis there is often no very high temperature, and the most severe cases may end fatally without rise of temperature. The diagnosis of thrombo-phlebitis depends usually in the beginning on the presence of high fever without any localization or pain; the subjective condition is in contrast with the high temperature. Bacteriological investigation is of great interest in the proof of puerperal infection. Although it has now been shown that streptococci are present in the uterus in three-quarters of the cases of normal puerperium, and that these streptococci may be haemolytic, yet in 70 per cent. of the cases in which typical haemolytic streptococci are found in the lochia in the first days of the puerperium fever will be present, while in cases in which during the first days they are found in masses and in pure culture, fever is almost invariable. The examination of the blood may also show the presence of infection, if the organisms are found in large numbers and on repeated examinations; the blood culture gives, if possible, conclusive evidence as to the bacteriological etiology of the disease, and also shows the severity of the infection. In discussing the prognosis, Zangemeister dwells upon the importance of the signs at the beginning of the puerperium, and considers that absolute sleeplessness on the first night almost always goes before the outbreak of a severe infection. The greatest importance amongst prophylactic measures is given to the limitation as far as possible of internal examinations and of operations during labor; where these are necessary, rubber gloves are to be worn. In addition to the avoidance in every way of infection, the measures of prophylaxis include the absence, as far as possible, of anything tending to lower the resistance of the organism, as, for instance, long-lasting narcosis, severe loss of blood, intense chilling of the body, etc. The uterus after the birth should be empty, and be kept empty, but if part of the membranes are retained their presence is less dangerous than exploration of the uterus to remove them. Zangemeister looks upon active local treatment as not only useless but dangerous; where symptoms of infection show themselves it is to be remembered that the bacteria are either already limited in the endometrium, in which case such measures as washing out, curetting, etc., are useless, or that they have already spread beyond the limit of the endometrium, and local treatment holds out no prospect of altogether removing them and may lead to their further spread. Where there is retention of placental remains, together with fever, Zangemeister advises that if the infection be recent a conservative treatment should be adopted; if possible, until either the uterus spontaneously empties itself or at least until the infection has limited itself and the danger of propagation of the infection from operative interference is reduced to a minimum. From experiments on animals it appears that in the severe cases which might be expected to end fatally something is to be hoped from the method of extirpation of the uterus, if the cases can be diagnosed sufficiently early. When abscesses form the pus is to be evacuated,

but the indication is not to incise before an unmistakable abscess has formed; special caution is to be observed before operating where there is an infectious pyosalpinx. The author finds that incision and drainage in recent puerperal peritonitis has not been successful. Benefit is to be obtained in suitable cases from compresses, cataplasms, painting with iodine, hot air, etc. The hot-air treatment is useful in aiding the resorption of older exudates, but is not to be used until the inflammatory process has altogether quieted down. General treatment is of great value. The serum treatment is considered. Fresh human normal serum has been found to have a good effect in cases of staphylomycosis and streptomycosis. Large quantities of fluid are helpful. Water is to be given either subcutaneously in large amounts or is to be slowly injected, ½ litre at a time, into the rectum many times a day. Alcohol is to be recommended in small doses to meet symptoms only. The food must be easily assimilable; milk is especially useful; deficiency in food is less dangerous than an excess leading to dyspepsia. Adrenalin is to be given in cases of peritonitis to combat the vasomotor paralysis. In view of the fact that a rise of temperature aids the organism in its fight against infection, antipyretics are to be excluded if the general condition admits of it.

Vaccinal Immunity in Childhood.—Comby (Arch. de Med. des Enf.) concludes that the immunity conferred by vaccination is at times lost very quickly. The duration varies very greatly in different subjects and we have no means of estimating this duration in a given case, even approximately. In the face of such variance prudence demands universal vaccination in times of epidemics, even of children who have recently been successfully vaccinated.

When a first vaccination is negative in a child, a second, a third, a fourth inoculation should be made if necessary, for it rarely happens that one does not get a positive result finally.

Even though it be admitted that vaccination will not in every case protect absolutely against smallpox, it should not be forgotten that any resulting infection in vaccinated cases is always mild.

Rupture of an Incarcerated Retroverted Gravid Uterus—Recovery.—Campbell (Jour. of Obst. and Gyn. of Brit. Emp.) mentions a case, 22 years of age, who consulted her own medical man at mid-term for retention of urine. The bladder was evacuated and the uterus found completely retroverted and irreplaceable. A fortnight later retention of urine recurred, and the uterus was still found fixed. The patient was not seen again until 15 hours after the onset of labor. Pain was complained of in, and there was tenderness over, the lower abdomen; there was some external hæmorrhage; pulse 100. On examination no presenting part could be felt, and the outline of the os could not be made out. Campbell saw her two hours later. The patient was put under anæsthesia in the cross-bed position, the vulva washed, and the vagina douched with a 1 in 2000 sublimate solution. On inserting the hand into the vagina a large opening was found which led into the abdominal cavity, the hand passing between the posterior lip of the cervix behind and the bladder in front. No remains of the anterior cervical lip could be felt. The finger could be passed over the posterior lip and downwards into the contracted uterus, which lay completely retroverted in Douglas's pouch. On passing the hand above the pelvic brim the fœtus with the membranes enclosing it entire was found lying free in the peritoneal cavity. The membranes were ruptured and the fœtus easily extracted, the placenta and membranes being subsequently removed by hand easily. The coils of small intestine tending to prolapse into the vagina, a number of strips of sterilized gauze were packed into the opening so as to protrude well into the peritoneal cavity above and to fill the vagina. Finally a pad of sterilized gauze and cotton wool was applied to the vulva. In four days the gauze drain was removed and afterwards the vagina packed with iodoform gauze. The patient was nursed in Fowler's position. The progress was favorable throughout. The forenoon temperature never exceeded 100° F., and the pulse rate did not rise above 80. She felt well, ate well, and slept well. In commenting on this case, Campbell remarks that rupture of the uterus from retroversion is exceedingly rare, and that rupture took place with intact membranes is peculiar. Fortunately, there was practically no hæmorrhage from the laceration, and thus the treatment adopted—removal of the ovum and stuffing the rent with gauze. The exact direction of the laceration could not be determined, but the body of the uterus was intact, empty, and well contracted.

Treatment of Lobar Pneumonia.—Latham in The London Practitioner says of the vaccine treatment that it leaves much to be desired. The effects of vaccines in chronic pneumoccoic infections and the results of vaccine therapy in other diseases show the necessity of investigating thoroughly the value of vaccine therapy in acute pneumonia. Latham's own experience is, on the

whole, encouraging. In several cases in which the patients' physique was good, and in which, in any event, a recovery appeared to be probable, the use of a pneumoccocic vaccine has been coincident with a rapid improvement. In some of these instances the crisis has occurred on the second, third, or fourth day, apparently as the result of the vaccine, and recovery has been uneventful. But it has not been of service in severe attacks in debilitated or elderly people. The e can be no question that an excessive dose may lead to the spread of the disease to the other lung, or to the formation of an empyæma. A vaccine prepared from the patient's own strain acts better than a "stock" vaccine, but the preparation of the patient's own vaccine, although it may be done in twenty-four to forty-eight hours, is not always possible, and, in any event, means some loss of valuable time. The dosage to employ remains to be worked out, The fact that very different results are obtained points to the varying potency of the "stock" vaccines on the market. The initial dose must be in accordance with the age and physique of the patient, the severity of the disease, and the day of the symptoms. It is rarely wise to give a larger initial dose than ten millions. The result can be well watched on the temperature record, and it is doubtful whether even frequent readings of the opsonic index give us any further information. If a dose is followed by a lowering of the temperature it has done good. If the temperature then rises again, we may repeat the dose (or give a slightly larger one in some cases) at an internal of thirty-six to forty-eight hours from the first dose. If a dose is followed by a rise in the temperature it has been too great. If a dose has no effect on the height or range of temperature or on the symptoms we may give a larger one in thirty-six to forty-eight hours.

Vegetarian Diet in Health.—Determann (Beihefte zur Med. Klinik.) discusses the effect of a vegetarian diet upon people in ordinary health. The two questlons which especially need answers are: (1) Does the vegetarian diet suffice to the maintenance of health? (2) on a vegetarian diet are injuries to the health avoided which are incurred on a mixed diet? Three classes of vegetarians are distinguished: those who eat only raw vegetable food: those who eat cooked and uncooked vegetable food; and those who allow of the use of milk, cheese, butter, honey, and some few, even eggs. The question of the amount of proteid necessary in daily food is considered and Chittenden's work reviewed. The author finds that an amount of proteid smaller than that which was previously considered necessary is not only allowable but is compatible with a condition of sound health and with all the manifestations of the same, and further he inclines to the opinion that it is not only possible, but that it is also useful, to moderate the amount of proteid consumed. Vegetarians maintain that the vegetable proteids of the food are specifically different in their action from the animal proteids, and that they have a different effect, not only on the body but alsp on the character and *morale*. In the present state of our knowledge of the breaking down of the food proteids in digestion it is extraordinarily difficult to believe, however, that the minute biological peculiarities of the food proteid molecules are preserved; the specific nature of the organized proteid body is probably chiefly dependent on the specific activity of the different tissues. Moreover, the point is not necessarily a favorable one for vegetarians to raise, for it is possible that the animal proteids need a less complete breaking down before absorption than the less nearly akin vegetable proteids, and therefore call for less energy in digestion. The individual tolerance of the nuclein bodies, the precursors of uric acid, varies very greatly, and absolute certauty as to the significance of these bodies has not been reached, but it is, at any rate, in accordance with much experience that a large consumption of them is injurious in a majority of cases; this does not, however, show that their use should be altogether discontinued. It follows from the article that a preponderating amount of vegetarian food is to be recommended to almost every one. The Japanese exemplify the fact that a people on such a diet may be possessed of the greatest bodily and mental strength and activity. The cheapness of vegetarian food is a great recommendation, and the author gives a table of relative costs which brings out this cheapness clearly. The volume of a vegetarian diet may be diminished by a suitable choice of the items, and the addition of animal fat has nothing against it but the cost, while milk and cheese are in no sense harmful, and are comparatively cheap. On a raw vegetarian diet an enormous percentage of the nutritive material is unabsorbed. The practical difficulties of a vegetarian diet are considerable, but the diet is not necessarily monotonous. Moreover, on the author's view, it is not necessary to do away altogether with meat, nor in truth is our digestive apparatus at present suited to a purely vegetable diet. The author's concluslons are: That the vegetarian diet, including milk, milk preparations, and eggs, supplies everything needful for health; that it has no disadvantage as compared with a preponderatingly meat

diet; the proteid contents of the vegetarian diet are sufficiently great. Probably no specific difference exists between the use made by the body of vegetable or animal proteid material. On the other hand, too high proteid contents in the diet probably is injurious to the health; the uric acid forming bodies which are present in specially large amounts in meat are most probably injurious. It is not necessary altogether to avoid meat, but it is well to considerably limit the amount taken. The vegetable-milk diet is much cheaper than the preponderatingly meat diet, but its absorption by the intestine is less complete. The change to a vegetable-milk diet can only be gradually effected. Careful preparation and cooking renders the vegetarian diet digestible and easy of absorption.

Suprapubic Prostatectomy Without Opening the Bladder.—Van Stockum, according to The Hospital, London, described two cases of suprapubic prostatectomy successfully performed without opening the bladder. The author's method is as follows: After making an incision above the pubes and cutting down on to the anterior wall of the bladder, this latter is carefully separated from the posterior surface of the pubic symphysis. This having been done, the retropubic tissues are stripped off the anterior surface of the prostate, and each lobe of the organ enucleated separately, after opening up the capsule by a vertical incision a little to one side of the middle line. Whilst enucleation is proceeding, an assistant, by means of a finger in the rectum, pushes the organ well forward. A cathether is next passed into the bladder and tied into position. A gauze plug is then put into the prostatic cavity, and a drainage tube inserted into the suprapubic wound. The author is of opinion, however, that the drainage tube is really unnecessary, and proposes for the future to sew up the wound, leaving only a small opening through which the end of the gauze plug is brought to the surface. The catheter is left in for about a fortnight. He claims that this operation causes less damage to the tissues than that of Freyer, and reduces hemorrhage to a minimum.

Double Cervical Rib—Donaldson, according to the British Medical Journal, says that more or less well developed ribs are liable to be met with in connexion with the seventh cervical or with the first lumbar vertebra. Turner and Gruber say "cervical ribs may be either the unusually developed rudiments of the anterior transvere process or rib of the seventh vertebra, or merely unusually developed epiphysis." There is an independent developmeut of the costal element on the anterior limb of the transverse process of the seventh cervical—that is, on the interior root of the transverse process we get an independent centre of ossification, which may develop and assume the importance of a cervical rib. As regards the ætiology of this condition, opinion is divided. According to Planet, all animals possessed at one time as many ribs as vertebræ, but in course of time these have dwindled down to the number of twelve in man with only rudiments in the cervical region. Some writers accordingly class the condition as a species of atavism. Others have laid stress on the frequency with which several members of the same family are affected. For instance, Israel is of the opinion that heredity plays some part, and that there is sometimes a history of degeneracy in some member of the family. Occasionally also the condition is associated in the same person with some other congenital malformation. Formerly the condition was looked upon as rare, but with the advent of Rontgen rays and greater precision in diagnosis the condition has now come to be recognized as comparatively common. The majority of cases probably pass unrecognized during life because no symptoms manifest themselves. Of those which cause symptoms, the majority appear to be found in young females, the reason for this being undetermined. The age at which symptoms are noticed is generally between twelve and twenty, owing probably to the activity of the skeletal growth between these ages. In those cases which do not cause symptoms, the supernumerary rib probably is not large enough to project into the posterior triangle and there cause symptoms due to pressure or deformity. Cases which do present symptoms, however, are very frequently diagnosticated wrongly, because the neck is not examined for a possible extra rib to account, for example, for the symptoms of a neuritis in the arm. Hence, before the introduction of radiography, the condition was frequently discovered only accidentally, or, if attention was by any chance directed to the neck, the condition was as often mistaken for something else. The condition is now more often recognized, and it becomes possible to relieve pain and to obviate further complications such as possible aneurysm of the subclavian, gangrene, or paralysis of the muscles of the hand.

Hypertrophy of the Female Mamma.—Batson (Edinburgh Medical Journal) reports one case of this rather rare lesion. The hypertrophy began at puberty and was associated with pain and discomfort in the breast. At the age of 19, the patient menstruated twice, but only very slightly; since

then there has been amenorrhea. Eighteen years ago an adenoma of the left breast was removed. Owing to the constant aching pain the patient sought surgical relief; it was thought advisable to remove at first only one breast, for the reason that occasionally it has been noted that removal of one causes diminution in size of the other. As no such improvement took place, the other was also removed later. On examination the hypertrophy was found to be due to an increase in the fat and fibrous tissue.

Most cases of hypertrophy of the female mamma begin at puberty and are associated with some sexual irregularity, usually amenorrhea. Some cases are influenced by by the use of iodine and thyroid extract, but probably the best course to pursue is amputation. It is advisable at first to remove only one breast in order to note the effect upon the other.

A Case of Tubercular Rheumatism in a Child.—Genevrier (Annual de Med. et Chir. Infantiles). The patient was a child three years of age, who presented a series of successive transient swellings, purely inflammatory in character, at more or less prolonged intervals, in the various joints. The author's assumption of the probably tubercular type of this articular rheumatism was based upon the presence of Pott's deformity of the spine; chronic bronchitis, with especial involvement of the right apex, and the positive outcome of the ophthalmo reaction. The immediate source of origin was referred to the localization of tubercular toxins in the joints, by way of a latent tubercular focus.

On Perforation of the Stomach and Small Intestine as a Sequel to Ovariotomy and Hysterectomy.—Bland Sutton (Jour. of Obst. and Gyn. of Brit. Emp.) describes three cases of post-operative intestinal perforation. 1. Bilateral ovariotomy was performed on a stout multipara, aged 33, who was three months pregnant. The ovariotomy was straightforward, and an old unbiblical hernia was treated at the same time. The woman died eight days later, and at the post mortem two ulcers were found in the jejunum, two metres from the duodenum, one of which had perforated! 2. Right ovariotomy on a spinster, aged 30 years, was followed on the fifth day by sudden seizure with acute pain in the umbilical region and the development of peritonitis, to which the patient succumbed on the eighth day. At the post-mortem examination there were the usual signs of septic peritonitis, including a quantity of offensive fluid, which trickled from the upper part of the abdomen. On examination of the stomach three ulcers were found in the region of the greater curvature, one of which had perforated. 3. A spinster, aged 42 years, had a large subperitoneal myoma removed by subtotal hysterectomy. On the third day she had a sudden attack of epigastric pain, and 12 hours later she was very ill, with high temperature, rapid pulse, and distended abdomen. Thirty-six hours after the attack the abdomen was re-opened and a septic fluid was found coming from the upper part of the abdomen, containing flakes of clotted milk. This pointed to a perforating ulcer of the stomach or duodenum, and the patient's condition was such that simple drainage of the abdomen was resorted to. A post mortem was not obtainable. Bland-Sutton adds that he has not gleaned much information from reports of operations on the pelvic organs with such post-operative complications. In 1899 an interesting discussion on the "Treatment of Uterine Myomata" took place in Berlin. During the discussion, von Rosthorn stated that he had lost a patient from a perforating ulcer of the stomach following hysterectomy for myoma. Olshausen also stated he recalled at least four instances in which patients had succumbed after such operations from perforation of the stomach or small intestine.

Serum Treatment of Cerebrospinal Fever.—Currie and MacGregor, in the London Lancet, analyze the cases of cerebro-spinal fever in the Glascow Fever Hospital between May, 1906, and May, 1908, in which patients were treated with four different kinds of serum. The total number of cases was 330 of which 105 were treated with antimeningococcic serum. The beneficial results obtained were a delay in any of the fatal issues, and there were a greater number of recoveries. In most cases there was at least one injection into the spinal theca after withdrawal of cerebrospinal fluid. Repeated injections were usually subcutaneous; massive injections were necessarily so. The authors also state that the serum-treated patients, who survive the first ten days of illness, have a better chance of life.

Electricity in the Treatment of Cancer.

Leopold recently went to Marseilles to investigate the treatment of cancer by the electric spark, a method advocated by Hart and reported by him at the Electric Congress in Milan in 1906. Leopold says that the written descriptions of the method give very little idea of the technic which Hart has worked out in the course of several years. He regards the fulguration is merely a preliminary or adjuvant to the knife.

The improvement realized even in advanced cases is remarkable, relieving the patient of hemorrhage, pains and ichorous discharge for a time at least. Disseminated nodules of recurring mammary carcinoma are fulgurated each for five or ten minutes. This softens the nodules and prepares them for twenty or thirty minutes. The fulguration does not lead to the formation of an eschar; the tissue merely turns brownish and edematous, with free exudation.—Zent. f. Gyn.

Facial Paralysis, Treatment of.

Dr. F. Marsh reports the treatment of facial paralysis in two patients due to the division of the facial nerve in the mastoid operation. They show (1) that if division of the facial nerve is recognized at the time of operation, careful adjustment in the manner indicated (the use of strands of chromicized catgut) will probably result in the restoration of the function; (2) that if division has not been recognized the wound should be reopened and the nerve ends adjusted at the earliest opportunity; (3) that if a careful adjustment has been made a second operation should not be undertaken within three or four months; (4) that this method of adjustment should be tried before anastomosis with the hypoglossal or spinal accessory nerves is attempted, the results of which are not always gratifying. —British Medical Journal.

The Purgation Properties of Phenolphthalein.

Berthoumeau and Daguin discuss the usefulness of phenolphthalein as a purgative. It has grown greatly in importance during the past few years and its harmlessness as well as reliability make it valuable in all patients. It augments by direct contact the contracility of the intestine and increases the secretion. A dose of two grs. will purge, whereas half that amount for an adult will act as a laxative without producing abdominal distress. In children in doses according to the age, it acts very satisfactorily and is inoffensive.—La Presse Medical.

Genital Tuberculosis in the Woman.

Ch. Lenormant finds that genital tuberculosis occurs in about three per cent. of all operations for laparotomy for genital conditions. It is rarely primary, and then occurs in cases of genital infection by coitus with a husband affected with genital tuberculosis, the wife having some solution of continuity of the mucous membrane. It may attack any portion of the genital system. It is rare in the vagina and cervex, where there is a pavement epithelium. It is much more frequent in the uterine body, tubes and peritoneum. The most frequent location is in the tubes, where it is complicated with tuberculous peritonitis, sometimes ovaritis. In the vagina it is generally ulcerative, or infiltrating. On the cervix it may form vegetations. In the tubes there is a sac containing pus and detrius. Diagnosis from other forms of genital lesions is almost impossible during life. In case of tuberculous perionitis it is rather curable, especially after an explanatory laparotomy. In general the treatment should be a combination of operative measures with general anti-tuberculous treatment.—Le Progress Medicale.

New Observations on the Mechanism of the Production of Transitory Albuminuria in Children by Experimental Lordosis.

A. Mori has never obtained transitory albuminuria by lordosis in the horizontal position. He has studied in the obstetric clinic of Milan a collection of fetuses fixed in a position of lordosis at various vertebral levels, and has experimented on rabbits and guinea pigs, and believes that we con exclude any rotation of the kidneys on their vertical axes from the production of albuminuria by stasis of blood in the renal veins. The vertical position is necessary to the production of albuminuria. The stimulus of the splenic plexus must be reckoned with in the production of albuminuria by lordosis, as well as the vasomotor disturbances in the vena cava ascendens and its branches at the level of the lordosis produced, and the compression exercised by the kidney and liver disturbances.—La Riforma Medica.

Subacute Meningitis a Complication of Respiratory Troubles in Children.

Clement Delfosse mentions subacute meningitis as a not infrequent complication of pneumonia and purulent pleurisy in infants. The organisms that most frequently are responsible for this complication are the pneumonoccus and the bacillus of Pfeiffer. The child generally gives a history of frequent respiratory or digestive troubles, or of the eruptive fevers. The micro-organisms seem to be especially virulent in the cases in which we have this complication. The cerebrospinal fluid is always turbid, the more so in the severe cases, and there are present the microorganisms and polynucleated cells. The cerebral lesions are most marked on the convexity of the cerebrum. The prognosis is very grave, and treatment has little effect on the disease.—Journal des Sciences Medicales de Lille.

Antiformin in the Detection of Tubercle Bacilli.

Dr. O. Seemann has employed antiformin for the purpose of facilitating the detection of tubercle bacilli in pus, urine, exudations, stools and organs. Antiformin is a mixture of eau de Javelle and sodium hydrate, and owes its action to oxidation processes. The author has found that it acts best in 15 per cent. solution. If sputum is diluted with fifteen to twenty times its volume of this solution, the pus soon becomes homogeneous, and in from ten to forty-five minutes a clear fluid with a sediment, which can be removed by centrifugalization, is obtained. If there is no special hurry to obtain a specimen, it is wise to wash the sediment, with distilled water, to remove the excess of alkali, so that the bacilli may adhere to the slide better. If any difficulty is experienced in getting the specimen to adhere, a little of the fresh sputum may be applied to a clean slide or some albumin water (1 part of beaten-up egg white to 10 of distilled water and 1 per cent. of formaldehyde solution) may be employed. Tubercle bacilli are not killed in 15 per cent. antiformin after one hour, so that the method can be used for animal injection as well as for microscopical specimens. The method can further be applied to examine blood for tubercle bacilli. This may prove of use in differentiating between typhoid fever, miliary tuberculosis and sepsis. The bacilli obtained from the antiformin fluid are found in pure culture, all other bacilli having been dissolved.—Berl. klin. Woch.

Pediatrics Changes Hands.

It is with no little gratification that we learn that Dr. W. E. Fitch has purchased Pediatrics and will henceforth edit this well known publication. Dr. Fitch has long been connected with medical journalism as editor of Gaillard's Southern Medicine, and he will bring to Pediatrics a ripe experience both as editor and publisher. He is a graceful as well as a brilliant writer, and has contributed extensively to medical literature.

We understand that Dr. Fitch contemplates many changes in Pediatrics and with a staff of collaborators which includes many of the country's foremost pediatrists, this excellent journal is sure to achieve new success in its special field. Dr. Fitch is a true Southern gentleman, and his name on the editorial page is ample assurance of the high and honorable plan on which Pediatrics will be conducted. If the sincere good wishes of the many friends of both Pediatrics and Dr. Fitch mean anything there can be no doubt of the good work that will be done in an exceedingly important branch of medicine.—From American Medicine, October, 1909.

The Viscosity of the Blood and the Work of the Heart.

Giovanni Galli says that the molecules of the blood are subject to attrition in different individuals, due to the presence of various colloidal substances. These substances are subject to great variability, according to the amount of water in the blood and of fat molecules, and these vary with the distance from a meal. The composition of the blood varies with age, sex, and constitution. In polycythemia and plethora and viscosity is greatly increased and yet health is good. In anemia the viscosity decreases markedly. Compensation comes through the vasomotor nerves and the regulating mechanism of the heart. Increased viscosity of the blood does not produce cardiac hypertrophy. The temperature of the body, especially in febrile conditions, has also an influence on the viscosity we have a strong heart impulse and inelastic arteriis there will be greatly increased heart work, and *vice versa*.—Rivista Critica de Clinica Medica.

Treatment of Boils and Carbuncles.

No boil or carbuncle need be painful, nor should the treatment cause pain, according to A. Ogier Ward, of London, E. C.

The treatment which he employs is simple. A pledget of cotton soaked in carbolic glycerin is applied to the boil and covered with gutta-percha tissue and a bandage. As soon as pus shows, the epithelium is gently turned back and the glycerin reapplied. As soon as a slight cavity appears some of the glycerin is gently inserted by means of a simple glass syringe, and again the poultice of glycerin is applied. In two or three days the slough separates, and after one final poultice of glycerin the cavity speedily closes, with the minimum of scar, under any dressing. The hygroscopic action of the glycerin relieves the tension—the cause of the pain—very speedily, and it need never recur.

Ward has never had occasion to use any other treatment. He has never seen a carbuncle spread when once this treatment was begun, still less has he seen any danger to life in his own cases.

One very serious case he saw recently in consultation—that of a butcher with a carbuncle 6 in. by 4 in. between the shoulders. The treatment described above was adopted, the spread of the carbuncle was promptly arrested, and a quick recovery ensued.—British Med. Jour.

Excretion of Veronal-Sodium.

P. Fischer and J. Hoppe found that traces of veronal appeared in the urine, when veronal-sodium was given per mouth, in forty minutes; per rectum, in thirty minutes; and subcutaneously, in fifteen minutes. Sleep will set in about the same time. Veronal is detected in the urine as follows: 200 Cc. of urine are precipitated with lead acetate, and the latter removed with sulphuretted hydrogen. After filtering, the urine is evaporated to 60 to 80 Cc., decolorized with animal charcoal, and diluted to 100 Cc. Salt is then added and the fluid shaken out with ether. The veronal is recovered and weighed after the ether has evaporated. If given continuously, it was found that during the first four days a small amount of veronal remains in the body; later, however, the excretion runs parallel with the amount taken, so that with relatively small doses, and where the kidneys are normal, there is no danger of intoxication. With larger doses, particularly in the aged, and where the kidneys are affected, greater care is necessary, since the excretion is not so uniform, and a cumulative effect is possible.—Muench. Med. Woch.

The Temperature as a Guide to the Treatment and Prognosis of Phthisis.

S. V. Pearson emphasizes the necessity of a close study of symptoms in each individual case. This is notably true with regard to temperature. It is recognized (1) that with a miliary tuberculosis it is usual to find a type of temperature continuous or inverse; (2) with an acute caseating lesion a remittant or markedly intermittent type is found; (3) with a chronic fibroid lesion, constantly normal or subnormal is the rule, while (4) with a chronic fibrocaseous lesion either a normal, subnormal, or an elevated temperature is found, according to the state and stage of the disease. The author then passes to consider the method and time of taking temperature and the interpretation of the readings: There is, he says, no such a thing as a normal temperature, unless we take into account the natural daily curve, and in making daily comparisons estimate every attending circumstance, as exercise, diet, etc. He then takes up the peculiarities of temperature in women with reference to menstruation, touches on rare and ambiguous cases, discusses regulation of rest and exercise, and instability and lack of elasticity in temperature. In treating tuberculosis we should always remember the object we have in view. All cases cannot be arrested. We must take a chance with prolonged rest under suitable conditions The rest must be very complete when the temperature is high and must be continued as long as there is the slightest trace of fever. The patient must be carefully taught how to avoid relapses.—British Medical Journal.

Dr. Cook and the North Pole.

Dr. Frederick A. Cook has discovered the North Pole, it is said. However, to establish it beyond doubt it will be necessary for him to furnish further proof than his interviews in the public press. These have been interesting and some of the most prominent scientists of the world have confidence in him; and it would seem at this time that we have no right to challenge his word since he shows a determination to place all of the information which he has before the authorities of the University of Copenhagen.

Robert Peary, an explorer, also claims to have discovered the North Pole at a later date than the one given by Dr. Cook in his interviews, which is April 21, 1908. Although the expense of Peary's expedition has been paid by the Government and he is a public servant possessing knowledge that the people have a right to know, yet he sulks and acts like a sorehead, which in general are not characteristics of men of wisdom. The people are disappointed in him and even if he has been at the North Pole his name will never possess a value to the American people as if he had not shown a discourtesy to Dr. Cook. His demeanor resembles that of a spoiled child rather than that of a man of mature judgment.

Cook evidently is sincere and has acted the part of a gentleman, and if he be mistaken and Peary is the only one who has reached the Pole, Cook will be respected, but Peary apparently will never be a popular personage with the American people. As to who is right we await the verdict of the scientific authorities.

The father of Dr. Frederick A. Cook was named Koch, and the name was changed by error when he enlisted in the army; he was born in Germany and practiced medicine in New York. The younger Cook, who now lives in Brooklyn, was born in New York in 1865, and graduated from the medical department of the University of the City of New York in 1890, but was not actively engaged in the practice of medicine. Dr. Cook is to be congratulated upon his achievement and we sincerely hope that all claims he makes will be substantiated.

Several other doctors have been prominent in four expeditions: Drs. Kane, Hayes, Richardson and Rae have made contributions to Arctic literature.—Indianapolis Medical Journal.

Calcium Salts in Skin Diseases.

Dr. Bettmann has obtained remarkable benefit in a certain proportion of itching skin affections from internal administration of calcium lactate in a 5 per cent. solution, one or two tablespoonfuls an hour before meals, three times a day, for three or four weeks. His experience with seventy cases showed that the remedy failed to influence the affection in the majority of cases, but in others the effect was marked and encourages further trials of this simple medication, which his experience has shown to be harmless. It proved efficient in conditions peculiarly rebellious to other measures, especially in the "toxicodermias." In senile pruritus, in particular, the effect was marked.—Munchener medizinische Wochenschrift.

Ovarian Opotherapy.

Paul Dalche makes use of ovarian opotherapy, or the treatment of irregularity and deficiency of the ovarian function in a number of conditions. The indications include ovarian distrophies, shown by flashes of heat and cold, headache, insomnia, and such troubles; hyperactivity of the ovaries; ovarian ataxia, with irregularity of menstruation; cephalagia of puberty; polyglandular syndromes, consisting of variations in the functions of the suprarenals and thyroid; genital accidents, including amenorrhea, dysmenorrhea, and metrorrhagia; some cases of chlorosis and anemia; goiter and Basedow's disease; localized obesity; psychoses; chronic rheumatism after the menopause, and surgical menopause. It should be in the form of ovarian powder, powdered corpus luteum, peptonized ovarian substance, or glycerinated extract of ovaries. The treatment must be continued for a long time in order to get the best effects.—La Gynecologie.

Postrubeolic Diphtheric Conjunctivitis.

E. Weill and G. Mouriquand describe a small epidemic of diphtheritic conjunctivitis following measles, witnessed by him, in which the cases were all fatal. There are two kinds of diphtheritic conjunctivitis—a less severe one, in which there is a false membrane involving the lids alone and a severe form, in which there is no false membrane, but the ocular and palpebral conjunctiva are both involved, and the interstitial inflammation generally causes ulceration and perforation of the cornea and loss of the contents of the eye. The Klebs-Loeffler bacillus is found in the exudation. The severity of the measles bears no relation to the occurrence of the complication. There is rarely a pure culture of diphtheria bacillus but staphylococci or streptococci are present with it. Treatment is of no avail, and the children died in the cases seen by the authors.—Archives de Medecine des Enfants.

The Ovular Theory of the Pathogenesis of Eclampsia.

E. Opocher, after careful examination of all the clinical and experimental material with reference to the cause of eclampsia of pregnancy, concludes that there is not sufficient proof of the theory that the poisons producing the convulsions are generated by the metabolism of the fetus. To consider the eclamptic poisons as the products of the fetus is contrary to the dictates of physiological obstetrics and of observation. The placenta would not be capable of the neutralization of these products in cases of pregnancy going on to its end without eclamptic manifestations. Although the placentar theory is attractive from a theoretical standpoint, it is not proven practically by experiment or observation. The theory that is best substantiated practically, and that best accords with modern knowledge, is that of the production by the maternal system of antitoxines which prevent the appearance of eclamptic symptoms as a result of systemic poisoning.—Folia Gynæcologica.

Euquinine in Malaria of Pregnancy.

Although it is known that quinine may induce and intensify labor pains, yet many authors state that the drug may be given for an accidental malarial infection during pregnancy without danger. The possibility of a miscarriage must, however, always be taken into consideration. In some cases of pregnancy there is so marked an idiosyncrasy toward the drug that its administration is followed by very severe symptoms. Emanuel Grande recommends euquinine where pregnancy is complicated with malarial infection, since it is better tolerated and is not likely to induce uterine contractions. The drug, furthermore, is virtually tasteless, does not injure the stomach or intestines, is less likely to affect the nervous system, and is not so apt to set up an urticaria. In a number of cases reported, all far advanced in pregnancy, euquinine proved a most efficient drug for malaria without in any way interfering with the well-being of the patients. Further experiments will be necessary to determine if euquinine can stimulate the nerves of the uterine plexus or the smooth muscle fibers of the uterus itself.—Gaz. degli Ospedali e delle Cliniche.

Miscellaneous.

Appendicitis and Adnexitis.

Henry Hartmann describes appendicitis accompanying adnexitis as being conveyed by way of the peritoneum, there being no direct connection between these structures by way of the blood-vessels or lymphatics. In the woman the appendix frequently descends into the pelvis by pressure of the intestines and of the corsets. Diagnosis is somewhat difficult before operation. Pain is generally located lower down in adnexitis than in appendicitis. The history of the case is of value. The absence of a history of menstrual troubles and ascending infection is in favor of appendicitis. The picture of peritonitis is more marked in appendicitis, the expression is more anxious, the sensibility of the abdomen and the distension are greater. Temperature is more elevated and the condition is progressive, while after a time in adnexitis it is regressive. Treatment demands immediate operation as soon as a diagnosis is arrived at.—Annales de Gynecologie et d'Obstetriques.

Treatment of Some of the Severer Forms of Headache.—Harris (Brit. Med. Jour.) in discussing this subject classifies the causes of headache as A, Superficial. 1, Diseases of brain coverings; a, scalp; b, pericranium; c, bone; 2, reflex visceral neuralgias of the scalp. B, Deep. 1. Reflex cortical neuralgia. 2. Toxæmic. 3. Increased intracranial pressure.

Diseases of the brain coverings are due to morbid processes as rheumatism, syphilis and tuberculosis and should be treated as such. Reflex visceral and cortical neuralgias are best treated by rest and anti-neuralgic remedies as phenacetin, pyramidon and that class of drugs. Toxæmic headaches are treated by establishing a regular daily habit of the bowel. Increased intracranial pressure causes the most severe headaches and are usually only relieved by the use of the trephine. If due to meningitis, lumbar puncture may bring relief or leeches applied to the temples or back of the ears. The treatment of migraine he divides into local and indirect by lowering general blood pressure. The first includes trephining, lumbar puncture, leeches to the scalp, fomentations, hot bottles or ice bags. The second includes nitroglycerine and nitritis, opium, aconite, chloral, phenacetin, antipyrin, purgation, diaphoresis and a hot bath. Harris has had good success by applying leeches to the scalp, giving 10 grains of Dover's powders, with a hot drink containing $\frac{1}{6}$ grain of pilocarpin and keeping the patient warmly wrapped so as to promote perspiration.

Modification of the Original Wasserman Test for Syphilis is published by Bauer in the Deutsche Medizinische Wochenschrift. The requisites of the test are, besides the serum of the suspected individual, some normal human serum; an alcohol extract of the liver of a syphilitic fœtus or infant; fresh guinea-yig serum; and a suspension in saline solution of sheep's blood corpuscles. The two human sera are first heated to 56° C., and then four small test-tubes are prepared in the following way: One contains the patient's serum with five times the quantity of liver extract and of the guinea-pig serum; the second has normal saline solution substituted for liver extract, and the third and fourth resemble the first two, but contain normal instead of suspected serum. After incubation at blood temperature for an hour the sheep's blood suspension is added to each. Hæmolysis occurs in the third and fourth, and more slowly in the second; whereas, if the patient is infected with syphilis, the first rube shows no hæmolysis. One of the problems connected with these serological tests for syphilis is to determine precisely at what interval after the incubation of the disease the serum reaction makes its appearance. On the analogy of the Widal test for typhoid fever some such latent period would be expected, and the point is one whose elucidation will be observed with interest. The claims that have been made on behalf of the infallibility of the Wassermann reaction have been great, but if extended research really proves that the method gives absolute assu.ance whether a patient does or does not harbour the virus of syphilis within him, it is difficult to name a more important recent bacteriological research. As yet, however, experts seem chary of committing themselves quite as far as this, and rightly so until more work has been done.—The Hospital, London.

Dr. Livien discusses the identification of the spirochæta pallida and the detection of specific antibodies in the serum of people infected with syphilis. No serum therapeutic treatment had been found effective. Mercury and iodides remain the chief remedies. He states that mercury is best administered by injection or inunction, and that atoxyl, given in efficient doses, has proved experimentally to produce similar results, but is dangerous to the optic nerve. The diagnosis should be certain before treatment is started. Spirochæta should be found, or time given for the serum-test, or the appearance of the roseola. In most of the cases where iluunctions and injections are employed local treatment is unnecessary. Mercurial plaster should be used to

cover chancres on the lips or face. Nosophen is a good dusting powder, and orthoform may be used in painful cases. Malignant forms of the disease responded best to injections of calomel. When inunctions are used baths of soap and sulphur may be usefully added. The iodides are most useful in the tertiary lesions, but act well in vegetating secondary patches in the nose or throat. Iodism may be removed by daily administration of 15 grains of sulphanilic acid in 7 ounces of water. In sensitive cases iodipin is a useful substitute.—British Medical Journal.

"It is a well recognized fact that salicylic acid, the drug invariably indicated in rheumatism, is also the best bowel antiseptic. While the salicylic acid prepared from the natural oil is not depressant to the heart, the synthetic salicylic acid on account of its impurities is both depressing and irritating, and hence should never be given internally.

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Sterilization of the Skin of Operation Areas.—Stretton (Brit. Med. Jour.) applies to the skin a solution of iodine consisting of one part of liqu. iodi. fort. (B. P.) and three parts of (equal parts of methylated spirit and distilled water). The writer commenced the use of this method in minor cases, but as soon so well satisfied that he extended to others. It is carried out as follows: A wide area of the surface to be operated upon is painted on very freely, especially over hairy parts, and allowed to soak in. It is again painted immediately preceding the operation. After the stitches are inserted they are painted over for a margin of an inch all round. The first and only dressing is usually made on the eighth day; the stitches are then removed, and the line of incision with a margin of one inch is painted with the iodine solution. If for any reason the wound requires to be inspected at an earlier date, it is painted as above described. No previous preparation of any kind is undertaken—no bath, no scrubbing, and no shaving. The latter is an important point, because it saves the patient a good deal of after-discomfort. The chief points in favor of this method are said to be: 1. That it is an efficient method of skin sterilization. 2. The surgeon can be absolutely certain that it has been applied. 3. It is quickly and easily applied. 4. It saves the patient the sufferiug of a preparation which is at present very lengthy and very disagreeable. 5. It obviates the necessity of shaving, which is unpleasant at the time and causes considerable irritation afterward. 6. It saves an enormous amount of labor upon the part of assistants and nurses, with consequently a lessened expenditure. 7. It saves the cost of preparatory materials and dressings. 8. It can be used in emergency cases where preparation by the usual method is impossible.

The Symptomatic Expression Called Exophthalmic Goiter in its Relation to the Function of Reproduction in the Woman.

A. Pinard, after giving the history of an interesting case observed by him, in which the symptoms of exophthalmic goiter appeared whenever the reproductive functions were disturbed, gives it as the result of his observations that the syndrome called exophthalmic goiter has an etiologic relation with ovulation and not with pregnancy. As soon as the harmonious rhythm of the reproductive functions is re-established the syndrome disappears. It would be premature to say that, engrafted on a nervous soil, we have an autointoxication resulting from a derangement of an internal secretion of the ovaries, not the thyroid.—Annales de Gynecologie et d'Obstetrique.

A Supporter that Supports.

A perfect binder and supporter has been long in making its appearance, but the consensus of opinion by those seeing the exhibition of the "Storm" Binder and Support, at the recent meeting of the A. M. A. at Atlantic City was that perfection had at last been reached. Many who had been previously unconvinced by the advertisements of this invention of Dr. Storm in the medical journals, where they have appeared for some time, were delighted with the practical demonstration of its value. The unsolicited expressions of approval and satisfaction from those who are using them, and which Dr. Storm is constantly receiving, speak more loudly than all else; for, after all, the homely old adage is as potent as ever, that the "proof of the pudding is in the eating." If you are in despair for an abdominal binder that *will* support and yet not cause discomfort in the wearing, and will in fact be so comfortable that your patient will rather wear it than not, try one

of these unexcelled supports. Write to Dr. Katherine L. Storm, 1612 Diamond Street, Philadelphia, who is the inventor, and she will give you full particulars.—From The Woman's Medical Journal, Cincinnati, O., August, 1909.

The Reflexes in Infancy and Childhood.—Bychowski (Deutsch. Zeitschrift fur Nervenheilkunde) says that the examination of the reflexes in children under one year of age showed the constant presence of the patellar reflex, which is more marked, as a rule, than in adults. The Achilles tendon reflex, on the other hand, was found to be practically always absent during the first half of the first year, becoming more frequent in the second half, until it is fairly constant about the beginning of the second year. The abdomino-parietal reflex likewise is not congenital, appearing gradually in the course of the first year of life. The cremaster-reflex is often absent up to the fourth or fifth month, after which time it is active and constant. Babinski's reflex preserves the spinal type in the first periods of life (first and second year), during which time it is positive. About the beginning of the second year it undergoes transformation from the spinal into the cerebral type, and disappears.

Treatment of Hematocele after Ectopic Pregnancy.—Esch (Munch. Med. Wochensch.) says that every hematocele should be removed by early operation in order to prevent serious complications, especially secondarry hemorrhage, decomposition of its contents, suppuration, peritonitis and pressure by the tumor upon the adjacent organs. In the last sixteen months nineteen cases of extrauterine pregnancy have been treated in the Gynecological Clinic of the University of Greifswald, including two of freshly ruptured tubal pregnancy and fifteen of hematocele. All these recovered after operation, with the exception of one case in which diffuse peritonitis had developed prior to admission. Thd abdominal route, with Pfannedstiel's incision, was preferred as affording a clearer view of the parts in hematocele. This enables the operator to separate adhesions with less risk, to avoid injuries of the adjacent parts, to more thoroughly control hemorrhage, and also to remove all remnants of the pregnancy. Simple vaginal incision with drainage was reserved only for abscess cases, and in these removal or irrigation of infectious material was avoided to prevent extension or the process. If, notwithstanding all precautions, the general condition of these patients become worse, abdominal section should be attempted as a last resort, and, if possible, by the extraperitoneal method.

Dislocation of the Semilunar Bone.—Fensterer (Beitr. z. Klin. Chir.) says that the chief diagnostic signs in dislocation of the semilunar bone are a circumscribed and painful prominence in the palm in front of the palmar margin of the radius, with a corresponding depression on the dorsum of the hand, marked restriction of motion, particularly of palmar flexion, and impossibility of completely extending the finger. If there is a history of strong force applied to the hand we should look for signs not only of fracture of the radius, but always keep in mind the possibility of an isolated injury of the carpal bones, which can be confirmed by x-ray examination. In recent dislocations of the semilunar an attempt should be made to obtain reduction without operation. If this does not succeed, two plans may be followed—either to at once secure reduction by cutting down upon the dislocated bone or by waiting for some months until we are convinced that there has been no improvement in motion and no relief of the accompanying discomfort. In that event the luxated bone should be extirpated. This has been done 38 times among the 85 cases recorded in the literature. The operation by removing the mechanical obstacles to plantar flexion gives a prospect of good functional results even in chronic cases.

Two Interesting Cases.

Dr. Geo. Selkirk Jones, Ph. D., L. S. A. in an original article, first printed in Medical Reprints, London, says: "I am desirous of placing upon record the two following clinical cases, which have come within the sphere of my professional occupation. The first was that of a lady, the subject of a periodically recurring hemicrania of a decidedly neurotic type, upon whom the usual remedies had (*ad nauseam*) been tried, with occasional benefit alternated with disappointment. This led me to persevere with Antikamnia tablets, one every two hours for eight doses. This case having secured for me a meed of confidence, I have labeled it, mentally, as my first success with the preparation.

The second one is that of a man aged forty-five, the subject of asthma of a pulmonary type and associated with gastric troubles, for whom I was in the habit of prescribing alkalies. In this case I am now observing the gradually increasing evidences of the benefit of Antikamnia & Codeine tablets, which, up to the time of writing, have not failed or fluctuated in their analgesic and stimulating action upon my patient's asthmatic condition.

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Medical Society of the State of North Carolina meets in Wrightsville, June 21, 1910.

The Tri-State Medical Association of the Carolinas and Virginia (only members of State Societies eligible). Next Annual Meeting: Richmond, Va. Date of meeting February 8, 1910. President, Dr. LeGrand Guerry, Columbia, S. C.; Secretary-Treasurer, Dr. J. Howell Way, Waynesville, N. C.

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NEW ORLEANS POLYCLINIC
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Review of Southern Medical Literature

New Orleans Medical and Surgical Journal, September, 1909.

Chronic Interstitial Nephritis.—Dr. F. M. Thornhill believes that most all the preparations of iron are more or less difficult of assimilation, tend to produce constipation and to interfere with digestion, which is already weak, and in many cases becomes a prominent and troublesome feature. The sense of weakness and weariness experienced by some patients is not always a symptom of anemia, but is due to impaired elimination, and the accumulation of effete material in the system, particularly the muscles, and obviously iron instead of relieving this condition would aggravate it. The preparation easiest of assimilation with the least tendency to constipate and obstruct the avenues of elimination should therefore be selected. Either the common tincture or the iodid, the former when administered in connection with the spirit of nitre makes an efficient diuretic which is all the more apt to be indicated when anemia is present. Basham's mixture is, perhaps, the most universally prescribed preparation of iron in Bright's disease at the present day and no doubt much harm has resulted from its indiscriminate use. Some doctors seem to expect their patients to take it as freely and apparently with as much relish as those who are in the habit of drinking Dr. Pepper and Coca-cola at the modern soda fount.

Cretinism.—Dr. J. D. Bloom points out that the relationship, cretinism and myxedema, can scarcely be disputed from a standpoint of cause, the difference is to time of life; the thyroid treatment is equally beneficial in both instances, therefore the cause must be common to both or independent. It has been agreed too, that drinking water, since the change of water retards or stops in a measure the growth, is of tangible cause, for it is said that contiguous communities enjoy an exemption, notwithstanding living under the same conditions save water supply. The source and character of the water has naturally been questioned, it is known that soil water alone influences this condition and that neither snow water or that secured from rain produce it. This one fact is the one alone tenable so far, chemical composition has varied in almost all instances and this truth has led to the belief of a contagion, which is the idea being adopted.

The goitre-genic substance is practically something to be learned, the mere fact of boiling the water used in these districts where it prevails endemically, making the fluid innocuous, is significant.

True, it is, that the condition increases as long as the water causing it is continued, however, as yet, its mysterious nature must be admitted; immunity, of course, exists.

Primarily, the influence is upon the gland and its function, the other conditions are secondary; consanguinity has been charged with it, though heredity from goitrous parentage has more force.

Pellagra.—Dr. C. C. Bass quotes the following under Diagnosis and Prognosis:

In most of the cases the diagnosis is very easy after one is at all familiar with the disease. There is no other disease presenting the syndrome of the characteristic dermatitis, digestive disturbances and the depression. From scurvy, acrodynia, purpura, erythema, multiforma and allied conditions, the location on backs of hanes, lower forearms, face and dorsum of feet; character of skin lesion, a dermatitis followed by vesiculation or degeneration with pigmentatiou; salivation and diarrhea; no pain or swelling or hemorrhage of gums; the depression and history of corn eating, indicate the diagnosis.

Very few cases recover. Ten per cent. of the rural population of large sections of Italy and Roumania have pellagra. Though the majority finally die, others appear to recover and remain well. It seems quite certain that if the patient is not removed from the cause of the disease it continues to recur in season until a fatal termination is reached. Most of the cases reported in this country have died. but the disease was not recognized and maize withdrawn until too late to hope to get brtlliant results. Just how much the prognosis would be changed by treatment does not seem clear from the literature.

when is Gonorrhea Cured?—Dr. A. Nelken says that men, desirous of marrying, are constantly consulting as to whether or not they may safely do so. With a great many of them the "morning drop" of mucopurulent secretion has become an obsession. In such cases, make a routine examination of the prostate and vesicles. The urethra is measured with the urethrometer and usually an urethroscopic examination made. Nothing of especial pathological significance being found, stop all injections and advise alcoholic indulgence in moderation. If at the end of a week nothing new has developed, use an irritant injection either of nitrate of silver or bichloride of mercury. A second examination is made in another week, and if the smear is still free from gonococci and there is no frank pus discharge, then one is justified in advising the patient that he can safely marry.

Southern Practitioner, September, 1909.

Treatment of Pruritus Ana, With a Consideration of its Pathology and Etiology.—Dr. William M. Beach drew the following conclusions:

1. That pruritus ani occurs in mild and severe forms mostly in middle life; the mild type with simple pruritus, the severe type with marked eczema and skin changes.

2. Certain aberrations in general metabolism, or in adjacent structures are simply incidental and should be considered as complications.

3. Intra rectal growths, as hemorrhoids, adenomas, etc., or the presence of parasites are contributory.

4. The distinct pathogenesis of pruritus ani consists of single or multiple burrowings from the anal pockets, emitting a serous or sero purulent substance, which sinus may be complete or blind, and is always accompanied by proctitis, and frequently cryptitis, and small ulcers at the ano-rectal line.

5. These sinuses when complete are the sequelæ to an abscess history, but the origin of the blind recesses is in doubt, and yet it is not unlikely due to an infection by the colon bacillus.

6. The treatment is surgical for the purpose of obliterating the sinuses, correcting a rigid sphincter when necessary, and curing the proctitis and ulceration.

7. Gastro-intestinal and general metabolic disturbances must be met by rational measures.

The Texas Medical News, September, 1909.

A Plea for the Earlier Recognition and Removal of Uterine Cancer.—Dr. J. H. Reuss says that cancer of the cervix, recognized before the vaginal mucous membrane is involved, offers a fairly large percentage of complete recoveries after removal of cancerous tissue, or, at least a temporary relief of suffering covering a period often of years. If removed when far advanced, early recurrence is the rule and ultimate death the only relief. All authorities now agree that in the beginning cancers are essentially local processes, and that distinct growths occurring later in other organs are in reality nothing but metastases from the primary tumor. If these primary growths can be removed by operation before metastases have taken place, the patient is permanently cured.

The duty of every practitioner having within his practice cases of menstrual disorders or irregular uterine discharge, of ever so slight a character, in women who have borne children, is to insist on an early physical examination and a repeated and continued inspection of the cervical structures together with a deep section for microscopical verification.

Cancer of the cervix or uterus once diagnosed, there remains only one method of treatment: its earliest possible removal. Much has lately been written of the effect of X-Rays on these growths, and much more will continue to be written, but the results from early removal far surpass those from X-Ray treatment. Remove the tumor first and afterward apply the X-Ray treatment.

The Interpretation of Laboratory Findings.—Dr. J. H. Black believes that an actual leucocyte count is of value not only in blood diseases but in many other medical and surgical conditions. The surgeon has been quicker to appreciate this than the internist and has benefitted accordingly. The normal count may vary from 6,000 to 10,000 per cmm., the normal limits. However, patients vary in this regard as in others and what would ordinarily be considered a slight increase may be normal for the patient under observation. Counts may be increased within normal limits by digestion, exercise, massage, cold baths, parturition, during pregnancy and in the newborn. Malnutrition, hot baths, and prolonged cold baths decrease the count. These things should be considered and unless there is an easily determined pathologic variation, further counts should be

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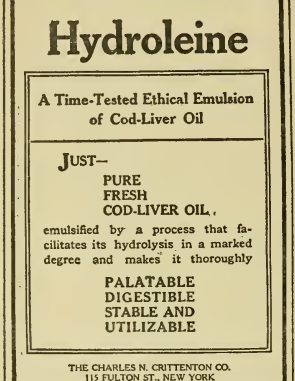

called for, these to be made under the same conditions each time.

On the line of leucocyte counts in medical cases would mention typhoid. Here leucopenia is the rule. Leucocytosis means, in previously simple cases, the development of some complication, particularly perforation and hemorrhage. A count made immediately following a suspected perforation would necessarily prove or deny but, coming on as it does as a result of the developing peritonitis, a rising count soon after would be of confirmative value.

The Relation of Gall Bladder Affections to Diseases of the Stomach.—Dr. H. G. Walcott says that his experience, together with the literature on the subject, leads to the belief that even in these cases of cholecystitis in which the symptoms are so slight as to escape detection, that an associated peri-cholecystitis often exists and adhesions of greater or less extent with the adjacent pylorus, duodenum and colon takes place. These adhesions are not sufficient to produce complete obstruction but do in some cases interfere with the normal peristalic waves to such an extent as to produce a stasis of food in the stomach with a resulting atonic dilitation of that organ, with the resulting symptoms. Adhesions with the colon often tend to produce both constipation and obstipation. In all probability the inflammation of the gall bladder reflexly tends to increase the acidity of the stomach, for in these cases in which there are no adhesions and no dilitation of the stomach, the acid is increased. The conclusions to be drawn are that in all cases of gastric disease in which you find a continued tenderness in the gall bladder, even if the history of other symptoms of cholecystitis are absent, you will save time and reputation by placing the patient in the hands of the surgeon for a gall bladder operation. The remaining symptoms and pathological conditions in the stomach and intestines can then be treated with more assurance of success.

Texas Medical Journal, September, 1909.

Some Remarks on the Pathogenesis of Tuberculosis.—Dr. T. Y. Hull has observed sudden improvement follow an intestinal hemorrhage in typhoid fever. This observation, together with the discovery that the blood possesses decided germicidal power, which, outside of the vessels seems greater than within, led to the belief that many bacilli were destroyed during the hemorrhagic process. This destruction of bacilli within the tuberculous foci is probably true only to a limited extent, and it could have little or no effect upon the patient if it were true. A more probable reason for improvement lies in the fact that tuberculosis is both a toxemia and a bacteremia. During a moderate hemorrhage a large number of bacilli and their toxins are swept out of the body. The blood, thus relieved of a certain per cent. of its load of bacteria and toxic substances, is able to recover its loss of blood corpuscles much more rapidly than the bacilli can multiply and elaborate their toxins. This increase in the relative proportion of blood corpuscles to micro-organisms increases its bactericidal power, thus rendering the conditions less favorable to the invading bacteria, and more favorable for recovery. In this light the old practice of "blood-letting" had some basis in truth.

The Southern Clinic, September, 1909.

Local Anaesthesia by Beta-Eucaine.—Dr. L. B. Bouchelle says that the solution can be prepared by any druggist or preferably by the operator himself. It should be prepared as follows: Boil 3½ ounces of distilled water or filtered rain water in a clean glass vessel, add to the water after it has boiled a powder containing beta-eucaine 3 grains and sodium chloride 12 grains and let it boil two minutes longer. Then remove from fire and let cool to blood heat and add 10 drops of a 1 to 100 solution of adrenalin chloride. The boiling sterilizes the solution and does not hurt the beta-

eucaine. The adrenalin is damaged by the boiling and as it is already sterile it is not necessary to boil it. The solution should be carefully made and if the operator does not make it himself, he should caution the druggist not to boil it after the addition of the adrenalin. The syringe and needles should of course be properly sterilized but as any alkali will spoil the solution they should be boiled in water and not the usual soda solution.

Virginia Medical Semi-Monthly, Sept. 10th, 1909.

Local Anesthesia in Major Operative Work.—Dr. E. M. Hasbrouck describes the technique as follows:

It is a good idea to precede the operation with quarter grain morphine given hypodermically. This quiets all nervousness and apprehension, and while it is not a necessity, I have always found its influence for good. All of the preliminary work and most of the subsequent work will be done with the weaker solution, 1-1000, and the first step is that of skin infiltration for the initial incision. This is one of the most important steps in the method, and unless thoroughly done, pain is produced at the outset and we lose the confidence of our patient, and this confidence once lost, let me assure you, is never regained;—failure in this first stage may defeat the whole procedure.

For this purpose two or more hypodermic syringes are kept busy, the empty ones being kept filled, while the others are in use. Remembering that our solution is non-toxic we use it freely along the entire line of incision, just barely beneath the skin, producing a wheal ahead of us as we advance, and then deeply kneading the tissues so as to disseminate the fluid. On cutting down we will find the tissues blanched and bloodless and entirely without sensation. On reaching the deeper structures knowledge of nerve distinction becomes of prime importance, for by availing ourselves of Crile's method of nerve blocking, the sensory nerves are picked up one by one, and injected with a few minims of the one per cent. solution, after which the entire field becomes insensible to touch. If at any time a sensitive part is encountered a few injections with the weaker solution is all that is necessary to render it insensible; and thus feeling our way along the work is brought to a successful and painless close

Diseases of the Colon Due to Extra-Intestinal Causes with Special Reference to Membranous Colitis.—Dr. A. B. Cooke says that for present purposes the term membranous colitis is limited to that peculiar affection, which is characterized by the periodic discharge of mucus with membranes or casts from the bowel, and of which fecal stasis is always a prominent feature. With reference to this type of colitis, Dr. Cooke stated unequivocally that he had never seen a case in which he failed to find some gross pathologic condition of one or more abdominal organs as well as of the mucous membrane, and furthermore, that the etiologic relation between the two has been clearly established in a number of cases by the prompt and permanent disappearance of the bowel trouble upon correction of the extra-intestinal condition, after all other methods of treatment had failed. From this experience he had been led to conclude that the primary causes of this particular variety of colitis belong in the main, if not exclusively, to a special class, viz., those which act mechanically. Most noteworthy in the list of such causes are enteroptosis, right movable kidney, peritoneal adhesions and extra-intestinal growths which occasion continuous pressure upon some portion of the colon.

Virginia Medical Semi-Monthly, Aug. 13, 1909.

The Epileptic.—Dr. W. F. Drewry says that in senile (arteriosclerotic) epilepsy, or

in cases of low arterial tension, functional or organic diseases of the heart, or when a heart tonic is indicated, digitalis, strophanthus, adonis, or nitro-glycerine, may be combined with the bromides with benefit. In anæmic, debilitated, or neurasthenic cases, combine bromide of soda with glycerophosphate of soda. Iron may also be given with benefit in such cases. A combination of bromides with adonis vernalis and codeine gives good results in some cases. Bromipin (bromine and sesame oil) and bromalin are remedies of some value, especially in feeble or asthenic cases. Biborate of soda, as an anti-spasmodic, is a valuable remedy when given with bromides. Belladonna, similarly administered, sometimes proves efficacious, when the bromides alone fail. What is known as the Fleichsig treatment—the opium-bromide method—seems to be more beneficial in the early stages or in young subjects than it is in confirmed cases. Horse nettle (Solanum Carolinese) has value in some cases, and others have been benefited by the so-called intestinal antiseptics—beta-naphthol, salol and other drugs of this class. Occasional doses of calomel and salines have apparently some influence, certainly in lessening the mental bebetude and irritability. Likewise, diuretics—the bromides being eliminated chiefly by the kidneys—should be freely given. Baths are useful adjuvants, in fact indispensable in encouraging needed bodily elimination. Hypochlorization, that is, the suspension of sodium chloride from the diet, using instead the bromide salts, preferably the sodium, with the food, has had good effect in quite a number of cases.

Treatment of Angina Pectoris.—Dr. A. G. Brown believes that the attack in the usual case can be treated with the following agents for relief of pain: chloroform, amyl nitrite, morphine, chloral hydrate, bromide potassium or sodium, nitroglycerin, sodium nitrite. Absolute rest in recumbent position, application of hot packs to chest, sipping of a cup of very hot Epsom salts solution. Those cases showing acute dilatation of the myocardium, with or without great pain, should be stimulated by simultaneous use of strychnine, spartein, caffein, camphor, ammonia, and should not be depressed but sustained, depending more upon topical applications and gastrointestinal elimination of possible etiologic factors.

If the case is one showing no marked cardiac vascular, or visceral lesion, and not attributable to glands of internal secretion, look for the main cause in the gastrointestinal tract. In these cases a strict diet, a limitation as to quantity and a selection of the kind of food used, will in all probability, after a sustained observation and management, show marked improvement and come to permanent relief. These patients place upon a skimmed milk diet with or without lime water. Order a saline purge in the early morning usually in the form of magnesia-citrate. Keep them on the milk diet for some time. When the precordial pain is relieved and not excited by more or less exercise, prescribe a more liberal diet.

External Accidental Hemorrhage in a Case of Normally Situated Placenta.—Dr. O. Marshall says that his treatment consisted in two things: first, checking of hemorrhage; second, induction of labor. If the uterus is healthy and we prevent the blood, which is being poured out from behind the placenta, from escaping out of the uterus the pressure inside will become equal to the blood pressure and hemorrhage will cease. We can be assured that the uterus is healthy if the physical look of hemorrhage is good and the fact of its being external. The vagina was immediately tightly plugged with tampons. This did two things:—practically it stopped hemorrhage and brought on labor. This coming on gradually did not increase shock from which patient was already suffering, but on the contrary, allowed her time to rally from the collapse caused by loss of blood. The patient was left in bed for two hours. Then with assistance from another physician she was given an anæsthetic. Packing was removed and cervix found to be dilated the size of a standard watch. Further dilatation was rapidly made with hand, and the membranes ruptured. Forceps were applied, and fetus delivered but soon died. Placenta was taken and uterus massaged. Patient put to bed and given a dose of ergot (hypodermically). Later gave stimulants and small doses of ergot. Patient recovered in the usual time, about two weeks.

Virginia Medical Semi-Monthly, Aug. 27, 1909.

Uncinariasis.—Dr. J. R. Perkins gives the following treatment:

The most popular drugs used are thymol, male fern, and betanapthol. Thymol has given excellent results in my cases, and I have had no occasion to use the other remedies mentioned. It is very necessary to have the intestines empty and clear of mucus before beginning treatment; if not, results will be disappointing. Some authors advise starving the patient the day before, giving calomel and podophyllin, and next morning a large dose of salts, followed in a short while by the thymol. This has upset the stomach and produced such nausea that the thymol could not be retained. When

treating a case, allow three glasses of milk the day before; and in the afternoon give a large dose of salts, which usually acts well on account of the small amount of food in the intestines; early next morning begin with the thymol, giving from ten to twenty grain doses every hour till four or five doses are taken. Usually, within a short time after the last dose, the bowels begin to act and the worms appear in the stools.

In case no action is produced in a short time, it is best to give another purgative. By this time the patient is weak and nauseated, and salts may not be retained. In such cases, a bottle of cold citrate of magnesia (effervescent) acts just as well, is more palatable, and better borne by the stomach. If the thymol is too irritating to the stomach, give one-eighth to one-fourth grain of cocaine before giving first dose. No food should be allowed the day of treatment till four or five hours after worms begin to pass.

Treatment of the Acute Diarrhoeas of Infancy. Dr. J. B. Nowlin says that after the stomach and bowels have been washed out, morphine 1-100 to 1-20 grain with atropine 1-250 may be given every two hours to check the vomiting and excessive peristalsis. This should be given by the physician and the effects carefully watched. The hyperpyrexia should be treated with

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hydrotherapy. Stimulants are early called for, of which brandy, in small doses frequently repeated, is the best. Port wine and claret may also be given. The only other drug that he has ever seen do good is mercury, either as calomel placed on the tongue or as bichloride in 1-100 grain doses every two hours. If collapse be present, the child should be placed in a pack, the temperature of which is 100 degrees, and kept at this by pouring on hot water every twenty minutes. At the same time, hypodermoclysis should be given, to which caffeine, 1-6 to 1-2 grain, is added. Ether and camphor may be given hypodermically. Alcohol should not be given in this stage. If the hot pack is not used, a hot mustard bath should be given, the child being kept in the bath until the attendant's hand is reddened. In using either the hot pack or the bath, cold cloths should be kept on the child's head. The ears should be stopped with cotton during the bath, and the eyes, if open, as they generally are in this condition, should be covered with moist gauze. Food, as a rule, does not enter in the treatment of the acute attack, all efforts for the first twenty-four hours being directed to keeping the baby alive.

Atlanta Journal-Record of Medicine, August, 1909.

Pelvic Operations in the Female per Vaginam.—Dr. W. L. Cook thus describes the operation:

Grasp the cervix with a vulsellum and make a small transverse incision immediately behind it, using scissors, and keeping as close to the uterus as possible; cut through the vaginal sheath, then introduce the finger, and boldly, but carefully, dissect along the posterior surface of the broad ligaments and uterus, breaking into each pocket of pus as it is encountered. This may be done with perfect safety, so far as infecting the general peritoneal cavity is concerned, as there are always sufficient adhesions above to prevent this, and the pus escapes by the side of the finger as fast as it is liberated. After thoroughly evacuating all the collections of pus, the opening in the vagina should be well stretched, to permit of good drainage. Now pack the pelvic cavity well with 5 per cent. iodoform gauze, which has been washed in a 1-4000 bichloride solution. Allow this gauze to remain in place four or five days, then begin to remove it, taking out a small piece each day until it is all removed, when the pus cavity will have almost closed up. A small wick of gauze should be left in for a few days longer to keep up the drainage. This plan of treatment should be used in all cases of puerperal sepsis that do not yield to cleaning out the uterus. In acute salpingitis, of gonorrhœal or other origin, even before pus has formed, the tubes will always drop low down behind the uterus, so that they can be very easily gotten at through this incision, and then swabbed out with carbolic acid or tincture of iodine, or otherwise treated conservatively. This operation may be done more than once on the same patient if there is a re-accumulation of the pus. In cases which are not entirely relieved by this treatment, it is much easier and safer later on to do a complete operation by the abdominal route.

Iritis.—Dr. T. E. Mitchell says that in the treatment of iritis three indications are to be met, and in order as follows: (1) Relieve or mitigate the pain; (2) keep the pupil dilated in order to prevent posterior adhesions and pupillary false membranes as a result of inflammatory exudates; and (3) remove by such therapeutic agents as are indicated the constitutional disease of which the inflamed iris is but a local manifestation.

As a routine procedure, which should be inaugurated just so soon as a diagnosis is made, the eye should be anæsthetized with a four per cent. solution of cocaine, followed by a few drops of a three per cent. solution of atropia at intervals of five minutes for half an hour. The above suggestions should be carried out by the physician himself, who should make pressure on the tear-sac to prevent a systemic effect of the atropia by absorption.

During the subsequent course of the disease, atropia should be used in such strength and with as much frequency as may be necessary to maintain a wide and uniform dilatation of the pupil.

With the iris and ciliary muscle thoroughly under the influence of atropia, the pain is by this alone greatly relieved on the broad surgical principal of putting an inflamed organ at rest. However, should the pain continue, applications of moist or dry heat will be of service.

Owing to the fact that the majority of all cases have a specific origin, and because of the additional fact that mercury is supposed to have a salutory effect on plastic forms of inflammation generally, antisyphilitic remedies should be resorted to without delay.

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Gulf States Journal of Medicine and Surgery and Mobile Medical and Surgical Journal, August, 1909.

On Some of the Clinical Methods of Investigating Cardio-Vascular Conditions.—By Dr. L. F. Barker, Baltimore, Maryland.

The Alabama Medical Journal, Aug. 1909.

The Early Recognition of Pneumonia and the Differentiation from Abdominal Conditions.—Dr. T. C. Donald says that there are certain clinical varieties of pneumonia, although some are due to organisms other than the pneumococcus, which deserve our consideration: First, wandering pneumonia. This is that form of the disease that tends to spread from one part of the lung to another; of this variety there are two distinct types—one in which the inflammatory process travels by direct continuity to neighboring parts, the other in which the disease affects different regions of the same or different lobes, as time goes on. Second, the asthenic or senile pneumonia. This is characterized by gradual, insidious onset, often without chill, or any prodromal symptom. In bed-ridden patients, it may pass unnoticed until the disease is far advanced. This form of pneumonia is often located at the apex, and is frequently accompanied by severe nervous symptoms, delirium and coma; the prostration is nearly always profound. Gastro-intestinal derangement, such as vomiting and diarrhœa may predominate; cough and expectoration may be absent. Though the respiratory rate is high, there may not be much dyspnœa. Heart's action is very weak; temperature is seldom high; may be normal or even subnormal; the course is always protracted.

Apical Pneumonia.—This is supposed to be more common in children and the aged. Delirium and hyperpyrexia are more common; delirium in this form is said not to be an unfavorable symptom.

Central pneumonia is usually simply an incomplete consolidation, which has begun in the deeper part of the lung; you have the clinical symptoms, with the absence of physical signs until late.

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Prof. Samuel P. Sadtler, Ph. D., LLD., and his son, Samuel S. Sadtler, S. B., state: We verified the composition of a-s-phen qualitatively and quantitatively, which clearly identified it and established its proximate composition, and found it to be a definite synthetic compound—acetyl-salicyl phenetidin, whose formula is C_6H_4 (OC-$_2$-H_3O) CO.NH.C_6H_4 (OC_2H_5) or $C_{17}H_7$ NO_4 This composition was established by Anschutz and Bertram (*Berichte der Chem. Gesell.* 37, p. 3975)."

Professor Dreser (*Berichte der Deutschen Gesell.*, Vol. 37, p. 3076), states: "In the matter of reducing temperature the anilides work better than the phenetides; but even in small doses they develop quite early the undesirable change of oxyhemoglobin into methahemoglobin, which appear as cyanosis. The phenetidin product, substituted with acetyl-salicylic acid (a-s-phen or thermol), proved inactive even in large doses (0.4 grams)"—where there was no temperature.

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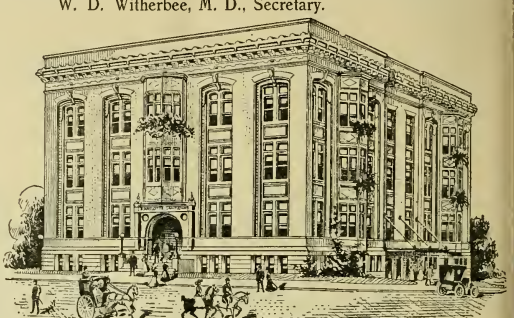

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An Interesting Point in the Treatment of Typhoid Fever.

By Henry C. F. Kellner, M. D., Philadelphia, Pa., Visiting Physician to the Roosevelt Hospital.

One of the greatest problems that has confronted the medical profession in recent years is the discovery and proving of an antithermic and antiseptic agent which will act in typhoid fever with comparative quickness without at the same time unduly depressing the heart action or lowering the vitality of the organism. It would seem the duty of all the members of the profession to make accurate observations, and, from time to time, reports upon remedies presented for their approval, in order to secure legitimate conclusion as to the merits of these drugs and compounds, with a view to establishing their degree of value, and thus, whenever possible, adding to the armament of the physician.

In a number of cases of typhoid fever occurring recently in my charge at the Roosevelt Hospital of Philadelphia, I have been interested to note the results from the use of a certain agent which seemed of unusual qualifications, and which I herewith report for comparison and investigation. The following typical cases give the salient features observed in administration:

Case I.—Fritz M—, aged 26, a Russian tailor, was admitted to the hospital January 12, 1909, with a temperature of 104 degrees, pulse 100, respirations 24. His tongue was badly coated, and the characteristic rose spots of typhoid fever were present on the abdomen. He was given a sponge bath of iced water, and the ice cap was ordered to his head. His diet was restricted to milk and iced water, and a routine pepsin-hydrochloric acid mixture was prescribed in teaspoonful doses every three hours.

There was the usual reduction of temperature following the sponge bath, but it rose again to 104 degrees by noon of the following day, the patient lying semi-conscious and restless. There was a marked loss of sphincter control, the feces and urine passing involuntarily. The Widal test was positive. To quiet the exhausting restlessness and the cephalic symptoms complained of, the patient was given a capsule of caffeine citrate two grains and phenacetin five grains, early in the afternoon, the dose being repeated at nine in the evening. Repeated spongings with iced water brought the temperature down to 101 degrees during the next twenty-four hours. This treatment was continued with the substitution of one-thirtieth grain of strychnia sulphate for the phenacetin-caffeine capsule.

From this time until January 18 the temperature was from 101 to 103, pulse from 95 to 108, respiration 36, shallow. The involuntary evacuations of feces and urine continued. On January 18 at noon A-S-phen (more generally known as thermol) in five-grain doses every hour was added to the treatment. Examination of the urine showed enormous numbers of typhoid bacilli present.

From the time of beginning the administration of A-S-phen the temperature never rose above 101.3 degrees, the respiration gained in depth and fell to 24 per minute, and the pulse became fuller and stronger, although counting at 100. The general symptoms abated, and the patient slept quietly, with very little restlessness. On January 21 the temperature fell to 99, the pulse to 94, and the respirations to 20. A specimen of urine sent to the laboratory showed a marked decrease in the number of typhoid bacilli.

The temperature diminished daily but gradually, a few tenths degree marking the improvement in the averages for each day. With corresponding favoring changes in pulse and respirations, normal conditions were established on February 2. At this time bacteriologic examination of the urine showed the typhoid bacillus present in very small numbers. February 10, reports showed practical elimination of the typhoid bacillus from the urine, and on February 12 the patient was discharged as cured.

Case II.—Ethel P—, aged 22, a seamstress, was admitted to the hospital January 13, 1909, with a temperature of 105 degrees, pulse 104, respirations 24. She complained of great malaise, and showed all the classic symptoms of typhoid fever, which were confirmed by a positive Widal reaction and the determination of the presence of the bacillus in the urine. She was placed upon a milk diet, and a pepsin-hydrochloric acid mixture reinforced by one-thirtieth grain of strychnia sulphate every three hours, was ordered, with a teaspoonful or whisky. She was given a hot cleansing bath, and four hours later was sponged with iced water. She made considerable complaint of pain in the abdomen, and some tympanites were present. The bowels were ordered irrigated with iced water at intervals of four hours. The first irrigations returned clear, but later a yellowish tinge of the water was observed. Under this treatment the temperature ranged from 102 to 105 degrees, with full rapid pulse registering 110 and respirations at 24. On the day of her admission a capsule of quinine sulphate two grains, phenacetin three grains, and salol three grains, was ordered every four hours.

On January 16 capsules of A-S phen, five grain doses every two hours, were ordered substituted for the quinine-salol-phenacetin combination. From this time the average

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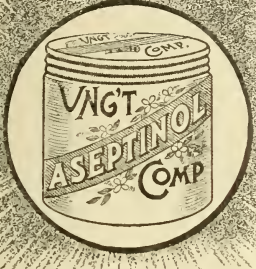

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of the daily temperature showed a gradual lessening of a few tenths each day, although the pulse and respirations evinced but little improvement, other than a steadying of the pulse. On the 18th, the patient was given a cleansing bath. Shortly after it was noticed that the fingers showed decided cyanosis at the tips, and in the fear that this symptom might have been due to the medication employed, the use of A-S-phen was discontinued, and the customary pepsin hydrochloric mixture substituted. With this change the temperature showed a distinct rise, from 101 degrees to 104, and by 10 o'clock that evening it had again reached 105 degrees, although the ice cap was kept

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constantly to the head and the bowel irrigations of ice water were continued at intervals of every three hours.

The following day the temperature lay between 101 and 103 degrees and the pulse at 112. The cold spongings did not seem to agree with the patient, and external applications were confined to the use of the ice cap and the hot cleansing bath. There seemed little gain beyond the status quo ante, although there was a slight lessening of the daily temperature average. There was no amelioration of the subjective symptoms.

On January 30th an examination of the case record showed that the cyanosis of the fingers apparently had no relation to drug medication, since it had appeared with regularity after each cleansing bath, even when the temperature of these was sufficiently high apparently to exclude the slightest danger of unfavorable reaction. The general condition of the patient did not seem satisfactory, and A-S-phen was again ordered in five-grain doses every two hours. From the time of its resumption the improvement in temperature and respiration became marked and the patient's general condition improved, although the pulse continued rapid, still registering 100 and over. The patient slept better, and took and retained nourishment more satisfactorily. There was less complaint of subjective symptoms. Within one week, on February 6, the temperature was nearly normal. A week later a distinct rise of temperature was noticed, several times reaching 103 degrees. This, however, was attributable to a large abscess which had begun to form upon the back, and to a local vaginal condition, shown by a greenish-yellow fetid discharge. These conditions existed nearly ten days, but with their improvement under appropriate treatment, the untoward symptoms vanished. During this period heroin in doses of one-twenty-fourth grain was given every four hours. After the evacuation of the abscess on February 23 the temperature never exceeded 100 degrees, and remained usually at 99. Conditions practically normal as regards temperature and respiration were established February 28, but the pulse continued at about 100. By March 4 the pulse also began to dryp, registering at that time 88. On March 9 a moderately full diet was allowed, and from this time until March 18, when the patient was discharged as cured, progress was rapid and uninterrupted.

Case III.—Anna S—, aged 18, a domestic, was admitted to the hospital on Monday, January 18, 1909, complaining of general malaise, and exhibiting hebetude with a low form of nervousnessr Her pulse count was 72, temperature 98.3, respirations 22. She was placed on a liquid diet with dessert-spoonful doses of an acid pepsin mixture every three hours. The usual cleansing bath was also given. Her temperature rose steadily from the hour of admission, and at 9 o'clock that evening registered 103 degrees, with a pulse of 92. She was given a cold sponge bath, and within a half-hour the temperature had fallen to 101.2 degrees. The treatment and conditions remained practically unchanged until the morning of January 31, the patient showing a temperature curve of from 99 to 101.5 degrees. The rose spots appeared on the abdomen, and the positive Widal reaction confirmed the diagnosis of typhoid fever. The patient began to show emaciation and the characteristic sores appeared, necessitating daily cleansing of the mouth. On the morning of the 31st the ice cap was ordered to the head, and albumen water added to the diet. The course of the disease showed but little interruption, the pulse remaining between 80 and 88, and the temperature showing a somewhat lower curve, between 99.2 and 101.3 degrees. On February 4, at noon, the temperature was 100.3, pulse 80, respirations 20. Bacteriologic examination showed the typhoid bacillus present in the urine in large numbers. The treatment was changed to A-S-phen in five-grain doses every two hours. Improvement in general appearance was almost immediate, the temperature following the change in medication, only once rising over 100 degrees. when a cleansing bath was given. It remained normal with a slight recorded rise late in the day to 99 and once 99.4. Upon February 11, one week after the inauguration of the treatment by A-S-phen, the temperature remained normal the entire day and thereafter. The bacteriologic report showed practical elimination of the typhoid bacillus from the urine. The patient was pronounced cured and was discharged from the hospital on February 12.

Case IV.—Helen K—, aged 22, a domestic, was admitted to Roosevelt Hospital on January 21 with a temperature of 102.1, increasing within the hour to 103, pulse 88, respirations 52. Her skin was very dry and burning, tongue coated, and she complained of headache and general malaise. She was given a cleansing bath, followed by sponging with iced water. The routine pepsin-hydrochloric acid mixture was ordered in dessert-spoonful doses every three hours, and she was placed on a milk diet. The next morning the characteristic rose spots were observed on the lower part of the chest, and a positive Widal reaction completed the diagnosis of typhoid fever. The day after admission her temperature rose to 103.4 degrees, pulse 96, respirations 24. On

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January 23 irrigations of the bowel with ice water were begun. Encouraged by the favorable results in other cases, five-grain capsules of A-S-phen were ordered every two hours. The rapidity of the pulse increased, ranging from 100 to 108, but the highest point reached in temperature after the administration of the drug was begun was 102, and the expected gradual decrease in the daily averages of temperature by a few tenths of a degree began. Normal temperature was reached January 31, and the pulse thereafter soon slowed to 72, and from that time improvement was rapid, without any complications whatever until February 11, 1909, when bacteriologic report showed absence of the typhoid bacilli from the urine, and the patient was pronounced cured and discharged from the hospital.

In the cases recited above diagnosis was established not only by the clinical symptoms of rose spots, characteristic temperature, etc., but laboratory methods established the Widal reaction and also the presence of the typhoid bacilli in the urine. Later laboratory examinations showed the rapid decrease of the typhoid bacilli from the specimens of urine submitted, and in each instance their eventual disappearance. There would seem here the possibility of an agent invaluable in preventing the establishing of "typhoid carriers" who are becoming recognized as no inconsiderable factor in the spread of the disease. If there is available a sure and ready means of eliminating the bacilli from the secretions, a great danger will be obviated. This is ventured as a suggestion for investigation in this line of preventive medicine. The rapid elimination of the bacilli from the urine in Case I is a remarkable confirmatory point. This man was at the point of death, but improvement followed in quick relation to the clearing up of the urine.

The gradual but steady reduction of the temperature curve must be noted. There was no possibility of harm, such as might have followed the abrupt reduction. The entire effect of the drug seemed to be in the line of assisting the forces of nature to battle with the invading bacilli. This result encouraged me to use the drug in various febrile cases in my private practice, in increased dosage. From my experience, I am led to recommend the plan of a steady, even increase of the daily amount of the A-S-phen administered. Within three days I believe that the system should be able to accommodate 120 grains a day. Particular attention should be given to the evidence of shock from a too sudden reduction of excess of temperature in reaching this daily amount. The amount of perspiration will also furnish a guide. If the amount should become too profuse, the dosage of the drug should be diminished in accordance.

A point frequently made against many of the various phenetidin derivatives is that they unduly depress the circulatory system. In Case II it was feared that A-S-phen was depressing in the effects from the indication of cyanosis observed on the extremities of the patient's fingers. Discontinuance of the drug with continued observation pointed unerringly to the fact that this cyanosis had no relation whatever to the use of A-S-phen, but was caused by the baths administered to the patient in the routine treatment.

A valuable indication may be observed in the slight effect upon the pulse rate in the use of A-S-phen, even in the weak circulation of the patient who exhibited the symptom of cyanosis. This slight effect was especially noticeable in view of the fact that the temperature showed steady decline under its administration. An agent having so conservative a mode of action, conjoined with the remarkable bactericidal power, as shown in the rapid disappearance of the typhoid bacilli from the urine, would seem of great value in this disease. The cases quoted as typical show milder and shorter courses under the conditions of very high temperature and great prostration upon admission. They are reported in the hope of stimulating further investigation in this most interesting line of research.

[This is another item in the rapidly accumulating evidence from the practice of closely observing, scientific physicians, showing the great usefulness of this drug in typhoid fever, pneumonia, and certain other systemic germ infections.—Ed. Medical Council.]

The Standardization of Digitalis.

Houghton, in a recent issue of The London Medical Lancet, reaches the following conclusions:

1. It has been shown by numerous laboratory workers that it is impossible to determine the value of the heart tonics of the digitalis series by chemical assays.

2. It is a well-recognized fact that the toxicity of these products warrants that every effort should be made to present preparations of them of as uniform value as possible.

3. Experiments upon animals have demonstrated conclusively that the variation in the physiological action of some of these products is extremely great.

4. It is urged that there be appointed an international committee to determine and recommend the best method of physiological assay of the heart tonics of the digitalis series and an international standard "heart tonic unit," to express the physiological

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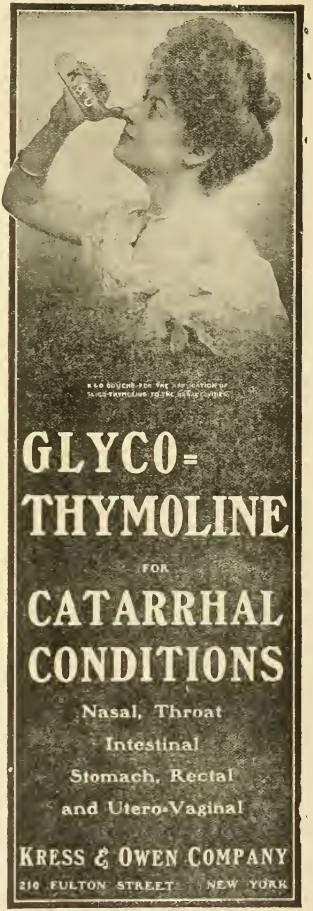

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value of the pharmaceutical products of this series.

5. The author puts forth a method of physiological assay, which is the result of nearly fifteen years of laboratory study, for consideration as a possible solution of this problem.

Post-Mortem Caesarean Section.

This operation is undoubtedly one of great antiquity, although it is difficult to state at what period of time in the world's history it was first performed. The *lex aegia* of Numa Pomilius, by which it was enacted that in the case of a pregnant woman near full term dying undelivered that body should be opened immediately after death and the child extracted, shows that it was known to, and practiced by, the Romans With the spread of Christianity and of the rite of baptism, which gave to the life of the unborn child an increased worth, the operation again came into favor, and in the first half of the eighteenth century Pope Benedict issued a precept in which the indications for, and the precautions to be observed in, its performance were duly set forth.

As Hubert remarks, the Roman Catholic Church reproduced the injunction of the *lex regia* in the following decree of its ritual: "Si mater praegnans mortua sit, fructus quam primum caute extrahatur." At the present day post-mortem Caesarean section holds a definite place in the medical art and should undoubtedly be practiced in all cases in which the chance of delivering the child alive is present. In some countries indeed, for example, in the German States of Bavaria, Wurtemberg, and Saxony, the *lex regia* is still in force. In France and England the matter is left to the discretion of the attendant physician, and as a natural result in these countries the operation is undertaken very infrequently.

Modern statistics are, however, much more encouraging—for example, 14 cases collected by Bauer, 10 children were born alive, and of 28 cases collected by Dicke during the years 1875 to 1903, 28 children were delivered alive, of whom 19 survived.

The researches of Breslau and Runge have demonstrated that the fetus is most likely to survive for some length of time after the death of the mother when this has taken place suddenly. In cases of high fever or of acute septic poisoning the fetus not infrequently dies before the mother. The suggestion that in order to minimize the risk to the child the operation should be performed on dying patients before a fatal issue actually results has found favor recently amongst various obstetric writers. This suggestion is one, however, of considerable antiquity, and was put forward by some of the older Italian writers, who discussed the advisability of the operation in the moribund state before death actually occurred. A number of modern cases of this kind has been recorded with a good result of the child.

The performance of a post-mortem Caesarean section may fall to the lot of any practitioner, and it is essential that he should have clearly in his mind the conditions which would render such an undertaking justifiable. These may be postulated shortly as follows: that the child should be viable and alive, that not more than twenty minutes should have elapsed since the death of the mother, and that the possibility of a rapid delivery by the natural passages should be out of the question.

An interesting case in this connection recently has been the subject of a coroner's inquest in the town of St. Laurent in Canada. A woman suffering from an abscess in the brain died during labor, and at the order of the priest in attendance a midwife performed post-mortem Caesarean section, it is said with a razor, and extracted a living child who survives. The matter naturally occasioned a good deal of comment in a small town, and in view of the rumor which prevailed that the woman was not dead at the time the operation was performed the midwife was held by many to have committed murder. A post-mortem examination, however, cleared up the cause of death and all the parties concerned were exonerated. The performance of such an ope ation by anyone but a properly qualified medical man, especially in a case in which the patient was not dead at the time of the performance, might well expose the persons concerned to a charge being preferred against them of manslaughter, if not of murder.—The London Medical Lancet.

Difficulties of a Second Cesarean Section Repeated in the Same Woman.

A. Brindeau enumerates the possible complications of Cesarean section that may render a second section more difficult and dangerous in the same woman. Several operators have repeated the operation one or more times in the same woman. The difficulties are hernia and eventration which rarely occur; adhesions; thinning of the uterus at the point of the cicatrix; and adhesions of the placenta to the cicatrix. Adhesions are quite frequent; they may be so slight that they are easily separated, or so firm that it is impossible to enter the uterus without opening the peritoneal cavity. The intestines may be involved in the adhesions, or they may simulate ventrofixa-

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tion. The uterine wall may be so thinned and friable that the removal of the uterus becomes necessary. Adhesion of the placenta over the cicatrix is a rare complication.—L'Obstetrique.

Puerperal Eclampsia and Leucocytosis of the Cerebrospinal Fluid

Maurice Villaret and Leon Tixier describes a case of eclampsia occurring before, during, and after a six months' abortion, in which careful examination of the cerebrospinal fluid showed that there was present a leucocyte reaction in the fluid. There was no other toxic condition, and no nervous or infectious condition present. There was no nephritis. The arterial tension remained normal throughout, and the albumin disappeared rapidly after the cessation of the convulsions. Had there been uremia the tension would have been high and albuminuria maintained for some time. The author states that there are a certain number of cases of eclampsia in which hypertension of the blood vessels cannot be considered a cause of the convulsions, and in these the presence of leucocytosis is in favor of a toxoinfectiue origin for the convulsions. —Gazette des Hopitaux.

Antibacterial Sera in the Treatment of Diphtheria.

Bandi says that therapeutic sera, in distinction from antitoxins, contain specific principles which opposes themselves to the vitality and reproduction of the bacteria. The author's serum is agglutinating and sensibilizing. Bacilli of diphtheria in contact with this serum when injected under the skin are rapidly destroyed by the phagocytes and undergo endocellular breaking down. It seems best to produce a polyvalent serum making use of different cultures of diphtheria bacilli, as is done with the streptococcus, so as to utilize differences of morphology and biology in these germs. The specific amboceptors obtained from the larger animal serum may be complemented by the use of alexic blood serum of man.—La Riforma Medica.

Scoliosis Following Infantile Paralysis.

M. P. Desfosses advances the theory that the cause of scoliosis is not osseous, but is due to a primary atrophy of the muscles of the back, accompanied by atrophy of the vertebræ. One of the principal causes of scoliosis is infantile paralysis, affecting the muscles of the thorax and lumbar region. The musculature of the back is very complex, very difficult to study in its different groups, and hence not well understood. There is a functional independence of the dorsal and lumbar regions. Infantile paralysis affecting the thoracic region will produce a scoliosis with the convexity toward the healthy side, while paralysis affecting the lumbar region will give a curvature with convexity toward the paralyzed side. Consequently, a paralysis of dorsal and lumbar region at once will give a double curvature.—La Presse Medical.

Treatment of Postanaesthetic Vomiting.

The most rational way to treat and prevent nausea and vomiting after anæsthesia appears to be to promote in every way the elimination of the circulating anæsthetic. That is to say, the patient should be kept warm so that the skin may act freely, and renal secretion should be helped. For this purpose saline enemata are of great value, and one should be introduced slowly as soon as the patient is back in bed. In some hands large quantities of saline solution are introduced under the skin slowly and for long periods of time after severe operations, and it is claimed that not only is shock diminished in this way, but after-vomiting is much less frequent. While elimination is thus going on, the less put into the stomach the better. There is no call for anything at all except through thirst, and this gives little trouble if enemata of subcutaneous injections are used. Washing out the mouth with lemon juice and water is pleasant for the patient and helps to allay feelings of thirst. Preventive treatment with glucose, based on chemical theories explaining delayed chloroform poisoning, has been given a trial at St. George's Hospital; the results do not show any marked alteration of the ordinary percentage of cases of after-sickness.—J. Alumfeld, in London Medical Press and Circular.

Tincture of Eucalyptus in Hemorrhage.

A. Todd White calls attention to the value of this remedy in cases of hemorrhage. He was sent for to see a patient who had a tooth extracted three days before, and had had persistent hemorrhage from the socket. The usual remedies were applied without. On the third day tincture of eucalyptus was applied and the hemorrhage almost immediately ceased. The next day the patient's brother cut his foot and the hemorrhage was profuse. Having some of the eucalyptus left he applied it the wound, and the hemorrhage immediately stopped. Later the author was asked to see a case in which persistent hemorrhage followed the application of a leech to the gum. The usual remedies—alum, tr. ferri perchlor, ice, etc.—were tried unsuccessfully for twelve hours. He applied tincture of eucalyptus, and the hemorrhage ceased within five minutes and did not return. It is most useful on lint

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after circumcision or other minor operations. He is of opinion that the internal use of calcium chloride combined with the external application of tincture of eucalyptus will stop any form of hemorrhage.—British Medical Journal.

Modern Treatment of Syphilis.

Dr. Lievin recently discussed the modern treatment of syphyilis, especially with regard to the respiratory passages. He referred to the recent advances in syphiology, including the identification of the spirochæta pallida and the detection of specific antibodies in the serum of people infected with syphilis. No serotherapeutic treatment had, however, been found effective. The chief remedies were still mercury and iodides. Mercury had been proved by Neisser by experiments on anthropoid apes to assist the organism to defend itself against the spirochæta and also to kill the microbe. Atoxyl was found experimentally to produce the same results, but if given in sufficiently large doses to be effective it was dangerous to the optic nerve.

In regard to the administration of mercury, Dr. Lieven opposed the oral method and advocated inunction and the subcutaneous or intramuscular injections. He compared the advantage of soluble and insoluble salts for injection. His preference was for calomel so far as effectiveness was concerned, but he reserved it for the malignant forms, the salicylate being more suitable for the routine treatment. These salts should be avoided in case of Bright's disease or diabetes. He considered inunction to be the method which combined the greatest therapeutical effect with the least danger. It was better tolerated if combined with baths of soap and sulphur. The secretions of the sebaceous and sweat glands rendered it capable of being absorbed and of circulating in the body as an albuminate.

Stomatitis was best combated by brushing the teeth after each meal with a paste of salol and chlorate of potossium, and by rinsing the mouth every hour with a solution of aceticotartrate of aluminum. Iodides were most useful in tertiary manifestations, but were also effective against secondary vegetating patches at the entrance of the nasal passages and on the floor of the nose. Iodism was often removed by the daily administration of 15 grn. of sulphanic acid in seven ounces of water. Sajodin or iodipin might be substituted for those who were very sensitive to iodides.

Dr. Lieven thought that there was not yet sufficient evidence in favor of treatment by means of the various arsenical preparations. Before treatment was commenced the diagnosis should be certain, and in doubtful

cases the spirochæta should be found or time given for the serum test or for the appearance of a roseola. Inunctions or injections should then be given, in most cases no local treatment being necessary. Changres on the lips or face might be covered with mercurial plaster; those inside the nose or mouth should not be cauterized, but simply dusted with nosophen or, for pain, orthoform. Secondary ulcerative patches might be painted with a concentrated solution of chromic acid and over this a 10-per-cent. solution of silver nitrate to form an adhesive scab. At the end of the first year iodides were given. After the healing of tertiary lesions under iodide of potassium (the most rapid remedy) iodipin injections along with mercurial inunctions were useful.—The London Medical Lancet.

Phenalgin: Its Chemistry.

Among the recent triumphs of modern pharmaceutical chemistry Phenalgin stands out conspicuously as a safe, efficient and always reliable analgesic. It is an ammoniated coal-tar product, the result of a special process which unites the ingredients in an active form, and admits of their independent yet correlative action when taken into the body.

More than ten years of clinical experience by thousands of active practitioners all over the world has demonstrated that the addition of ammonia to phenylacetamide (Acetanilidum) under the conditions observed by the Etna Chemical Co., in the manufacture of Phenalgin, correct the depressing effects of the Acetanilidum to such an extent that it becomes stimulating in its character, and that though the effect of the Ammonia which is combined in the Phenalgin is transient, it is sufficiently important to show that Phenalgin is one of the safest and best Analgesics, Antipyretics, and Hypnotics, "especially valuable in Dysmenorrhœa," known to the medical profession.

Unlike the coal-tar synthetic, Phenalgin is a stimulant rather than a depressant. To quote Hofheimer—"It stimulates the pulse rate for a short time after taking, and then the heart's action gradually slows down with a strengthening of the first impulse." It is as an analgesic, however, that its action is most marked, and it is without a peer in this respect. It exerts a selective uction on sensory nerve cells, obtunding their capacity for receiving and transmitting painful impressions. As has been previously outlined, Phenalgin thus prevents reflex action in the vasomotor system and removes the tendeney to hyperemia and congestion.

Its anodyne and hynotic influence is due to its tranquilizing effect on the higher nerve centers, producing a physiologic condition which induces natural sleep and repose.

As an antipyretic it has a remarkable field of usefulness, inasmuch as its effectiveness is not impaired by any depressing tendencies. It acts, first—by increasing the superficial circulation, thus favoring heat radiation from the surface of the body, and second—by direct influence on the higher centers, especially the heat centers, promptly controlling any elevation of the temperature.

It has valuable properties as an antiperiodic and greatly enhances the action of quinine and similar remedies as a useful synergistic.

Because of its effect on glandular structures, especially the liver. Phenalgin is a valuable eliminant, and this accounts for its superiority over opium and its derivates. Moreover, no habit is ever produced by Phenalgin, and it can be taken indefinitely with a constant maintenance of its anodyne influence.—Canadian Journal of Medicine and Surgery, July 1909.

Treatment of Gastralgia.

E. Farroni says that the causes of gastralgia are numerous, and hence the treatment must vary with the cause. Among its causes are the various diseases, organic and functional, of the stomach, diseases, of the liver, kidneys. appendix, lungs, and heart. Overeating may cause false gastralgia. All forms of malnutrition which result in intoxication may be added to the causes of gastralgia. Also all the exanthemata and infectious diseases. Hyperchlorhydria and achlorhydria may both be the cause of pain in the stomach. External topical applications in the form of heat, cataplasms, etc., and internal hot drinks are of value, The introduction of the sound to relieve distension when there is spasm of the cardia is of considerable value in gaseous distension of the stomach. Gastroenterostomy may be needed in some severe cases with anatomical changes in the stomach. Acetate of lead and nitrate of silver are useful in gastric ulcers which give severe pain. Alkalies are to be used in hyperacidity and acids in fermentations due to lack of acids. Antiseptics are useful in the fermentative cases. Sedatives may be necessary to relieve pain and relax spasm. Farroni therefore contends that we do not possess any specific treatment for gastralgia, and he says that it is necessary first to diagnose the cause of the pain and then to use such appropriate means of relief of the cause as the practitioner may be able to apply.—Gazetta Medica di Roma.

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Infective Infantile Ileocolitis. Bush, in the Australasian Medical Gazette, deals with the lactic acid bacillus method of treating this state.

The lactic acid treatment may be used in several different ways, and prepared by different agents. The process was allowed to proceed for 9 to 12 hours in milk diluted 1 in 4. There was usually clotting in this time, and the acidulated milk seems to be taken very well by children. If considered necessary, the time may be extended. The author has tried another way in cases in which the above did not seem to suit entirely. The milk was first peptonized, and then clotted milk whey was added to the required proportion. These are the only ways in which the author has administered this treatment, but it may also be given in the form of pure lactic acid culture as a medicine in prescribed doses, but it seems better to give the curdled milk, as by this means food and medicine are conveniently and pleasantly combined, and greater facility is afforded of introducing a larger quantity of the curative agent.

In regard to drug treatment, he believes no hard and fast rule can be adhered to. Individual cases, of course, require particular treatment, but he freely confesses that in his hands he has found no remedy or combination of remedies consistently effective. A form of treatment successful in one instance utterly fails in another. The author has tried to use the Pharmacopœia intelligently, he states, but has found it woefully lacking in many, indeed in the majority, of the severe cases. The writer has used many drugs and combinations of them on a number of cases, giving each a sufficient time to work its way, and has finally come down, or back, to a mixture of magnesia sulphate and corrosive sublimate, with the occasional administration of a dose of castor oil, and careful dieting, pinning most faith to the last. Complications must be met with the appropriate remedy, and should straining be marked or persist, he uses opium in small doses. Bismuth, as a routine, is absolutely useless, and, indeed, he thinks harmful, causing irritation. It is passed in the motions in a practically unchanged condition, often resembling curds, and most surely cause irritation. Bismuth is generally regarded as acting mostly as a mechanical protection and astringent. But he believes it has a deeper action than this. When it does any good it is passed in the black condition. Here, again, it would seem that there is some interaction between the agent and the natural intestinal secretion, and in the absence of the latter the bismuth is

powerless to act. The change is evidently some interaction with sulphur, and taking this view he has tried giving sulphur and bismuth in two mixtures, the former preceding the bismuth, generally, he admits, with little or no result.

He gives an occasional dose of bismuth simply as a test, and when it is turning the feces black he gives it as treatment, and has generally found it successful. But the trouble is that it is so often not turned black.

The writer mentions lavage of the rectum. Plenty of boiled water to drink should be allowed, and if the indications point to the need of alcohol, he uses it in appropriate doses.

The Prevention of Pelvic Disease in Women.—Hardie, in The Australasian Medical Gazette, in writing on infections by the gonococcus says let us suppose that a woman has contracted the disease, and that its treatment has to be considered. What the author advocates for man applies with equal force to woman, applies, indeed, with greater force, because of the greater difficulty in establishing a cure, and the greater risk of subsequent complications. Here again the practitioner is not often consulted until the disease has extended into the uterine cavity. He is convinced that, unless the symptoms are very acute, many women have gonorrhea without consulting a medical man at all, and seek advice only for some of its remote effects. This is all the more to be deplored, as, if neglected, it is almost an impossibility to cure the disease.

If the case be seen in the early stage, it is always essential that the disease should be treated thoroughly, and yet under ordinary conditions we know that this is not, and cannot well be done. We all know how this is usually done, by the patient visiting her medical attendant at irregular intervals, and doing her best to carry out his instructions at her own home. The treatment may possibly be successful, but probably not. No doubt the acute symptoms disappear, and the discharge may also apparently disappear. Taking it for granted that she is cured, the patient gives up treatment, and no more is heard of her until, in the course of time, it may be years, she may seek advice for some pelvic disease that is removable only, and perhaps not even that, by the surgeon. In the meantime she may have given gonorrhoea to another. This is a highly unsatisfactory state of matters, and the author asks us to consider if anything, and what, may be done to obtain better results,

Assuming still that the case is in the acute stage, and that the disease has not affected parts beyond the reach of medical treatment, and assuming also that the treatment prescribed is correct, failure can result only from want of proper application of treatment, or want of perseverance in treatment, or, what is more likely, from both.

Failure from lack of perseverance is largely due to ignorance on the part of the patient. Infected women, as the author has indicated in the case of men, must be educated up to the point of fully realizing the gravity of the disease, and the importance of being, if possible, absolutely cured. Once this is achieved, one could imagine they would persevere with treatment as long as is desired. Failure from imperfect application of treatment is a more difficult matter to deal with, as it seems quite impossible for the patient herself to carry out the medical instructions in a satisfactory manner in her own home. Yet she naturally objects to another doing what she can do but imperfectly herself. Here is a dilemma, the solution of which bristles with difficulties all round. If the medical man suggests a nurse or private hospital, objections are at once, and for obvious reasons, raised, and if, as an alternative, he proposes to take on himself work that really belongs to another, he accepts the position not from choice, but from a sense of duty.

Briefly put, gonorrhea is a common cause of pelvic disease in women, because in some cases it receives no treatment whatever, because in others it is too far advanced before medical advice is sought, or if not too far advanced there is imperfect application of treatment, and because the patient, being ignorant of the issues involved, gives up attendance and treatment when the cure of her disease is more apparent than real. Some of these obstacles the medical man cannot, for the present, overcome, but if he conveys to those patients who suffer from gonorrhea a realization of its possible consequences if neglected, the time will come by a process of direct and indirect education by way of compound interest, when women, who become the victims of it, will seek advice early, and will not give up treatment until authorized to do so by their medical adviser. Knowledge of the possible sequelæ of gonorrhea on the part of women seems to be the key-note, if not of its prevention, at least of the successful application of treatment in the future, before it has invaded the inner pelvic organs.

We are sometimes asked by a man or woman who has had gonorrhea or syphilis whether, and when, he or she may safely marry. So far as syphilis is concerned, Hutchinson considers marriage allowable after a period of two and a half years, provided the patient has received a thorough

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course of treatment during that time. Kelly and others advise a period of four years, during the last twelve or eighteen months of which there must be no manifestation of the disease. The question is one of grave concern, because, important as syphilis is from the personal aspect, it is still more so from the hereditary point of view. A man who trifles with syphilis, and does not persevere with the treatment prescribed, incurs a responsibility that only a lunatic would care to bear, and for which he should be segregated as a menace to the well-being of the race.

As regards gonorrhea the question is also not easily answered, on account of the difficulty of definitely declaring that the disease has been finally eradicated. No hard and fast period of time can be approximately fixed upon, but if the medical man is satisfied, after naked-eye and microscopic examination, that the disease appears to be cured, and allows a further probationary period of, say, six or twelve months, during which quarterly examinations are made with negative results, the author thinks he or she may safely marry. Experts alone can tell us when and how examinations should be made. One would imagine they should be made under conditions that are likely to bring a latent disease into activity, such as, in woman, just after the menstrual period, and in man after he has had, by special advice, a glass or two of whisky. We are also told that the smears should be taken not only from the os uteri, but from the glands of Skene and Bartholin in woman, and from the glands of the urethra in man.

The Role of Human Contagion in Infantile Tuberculosis.

J. Comby finds that tuberculosis is a disease that generally begins with aerial infection, from infected members of the infant's family. Prophylaxis should deal with removal of all tuberculous members of the family from the surroundings of infants, rather than with the sterilization of milk and the destruction of slightly infected cows. Milk, unless full of bacilli, will be digested and do no harm. But the grandparents who have chronic bronchitis and asthma, really tuberculous, will infect the child from their sputum. Children are born neither with tuberculosis nor with a predisposition to it. Remove the children of tuberculous parents at an early age from their home and bring them up in healthy surroundings and they will grow up healthy. Leave them with their parents and they will contract the disease. Pallor, emaciation, and narrow chest are symptoms of latent tuberchlosis, not predisposition to it. The measures taken against bovine tuberculosis, and to prevent the use of tuberculous milk, during the last twenty years have not diminished tuberculosis among infants. —Archives di Medecine des Enfants.

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reas. S. C. Stanton, M. D. Chicago, Ill.

ext Meeting St. Louis, Mo,. Oct. 12, 13, and 14th 1909.

OUTHERN SURGICAL and GYNECOLOGICAL ASSOCIATION.

nnual meeting at Hot Springs, Va., Oct. 5-6, 1909.

W. D. Haggard, M. D., Sec., Nashville, Tenn.

Stuart McGuire, M. D., Pres., Richmond, Va.

SOUTHERN MEDICAL ASSOCIATION.

nnual meeting at New Orleans, La. Nov. 9-10-11-12, '09.

scar Dowling, M. D., Sec. Shreveport, La.

Giles C. Savage, M. D., Pres. Nashville, Tenn.

EDICAL ASSOCIATION OF THE SOUTHWEST.

nnual meeting at San Antonio, Texas, October, 1909.

. H. Clark, M. D., Sec., El Reno, Okla.

Jabez N. Jackson, M. D. Pres., Kansas City, Mo.

RI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.

nnual meeting at Richmond, Va., Feb. 8, 1910.

J Howell Way, M. D., Sec., Waynesville, N. C.

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EDICAL ASSOCIATION OF THE STATE OF ALABAMA.

nnual meeting at Birmingham, Ala., 1909.

J. N. Baker, M. D., Sec., Montgomery, Ala.

B. L. Wyman, M. D., Pres. Birmingham, Ala.

FLORIDA MEDICAL ASSOCIATION.

nnual meeting at Pensacola, Fla., April 7-9, 1909.

J. D. Fernandez, D. D., Sec., Jacksonville, Fla.

J. F. McKinstry, Jr., M. D., Pres., Gainesville, Fla.

MEDICAL ASSOCIATION OF GEORGIA.

nual meeting at Macon, Ga., April 21, 1909.

aude A. Smith, M. D., Sec. Atlanta, Ga.

Thos. D. Coleman. M. D., Pres., Augusta, Ga.

KENTUCKY STATE MEDICAL ASSOCIATION.

Annual meeting at Winchester, Ky., Oct. 1909.

A. T. McCormack, M. D., Sec., Bowling Green, Ky.

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LOUISANA STATE MEDICAL SOCIETY.

Annual meeting at New Orleans, La., May, 4-6, 1909.

E. M. Hummel, M. D., Sec., 141 Elk Place, New Orleans, La.

E. Denegre Martin, M. D., Pres., New Orleans, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Annual meeting at Jackson, Miss., April 13, 1909,

E. F. Howard, M. D., Sec., Vicksburg, Miss.

J. W. Gray, M. D., Pres., Clarksdale, Miss.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Annual meeting at Wrightsville, N. C., June 21, 1910.

D. A. Stanton, M. D., Sec., High Point, N. C.

Jas. A. Burroughs, M. D., Pres., Asheville, N. C.

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Dr. G. K. Angle, Silver City, N. H. Pres.

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Dr. C. G. Duncan, Socorro, N. M. Treas.

Next meeting at Roswell, N. M., in the fall of 1909, the date to be annouuce later.

SOUTH CAROLINA MEDICAL ASSOCIATION.

Annual meeting at Summerville, S. C., April 21, 1909.

Walter Cheyne, M. D., Sec., Sumter, S. C.

S. C. Baker, M. D., Pres. Sumter, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.

Annual meeting at Nashville, Tenn., April. 13-15 1909.

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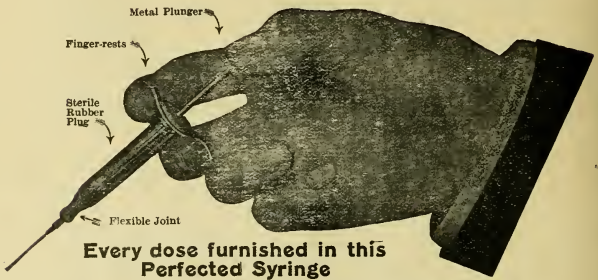

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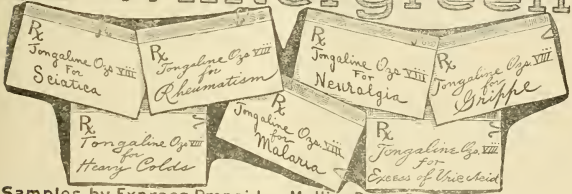
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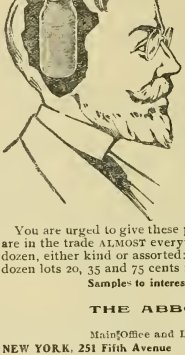

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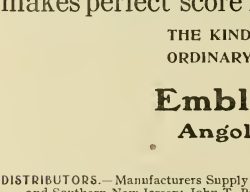

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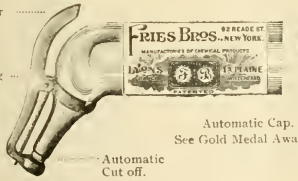

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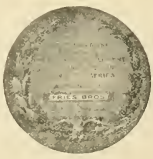

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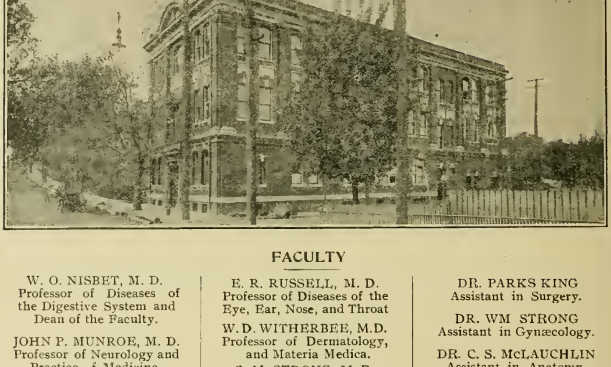

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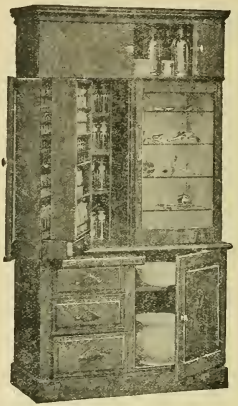

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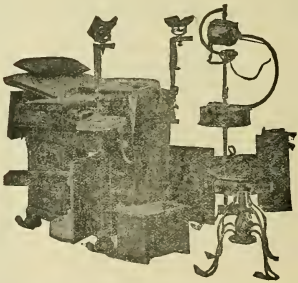

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The Charlotte Medical Journal

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Results of Stomach Analyses in Pellagra.*

By Dr. W. O. Nisbet, Charlotte, N. C.

I desire to report results of the analyses of stomach contents of ten cases of pellagra. All of the cases were given the Ewald-Boas breakfast of one roll and one and a half glasses of water, and contents were removed by tube one hour after ingestion. The acidity was estimated by Topfer's method of titration. A detailed account of the cases will not be given; only the stage of the disease and the points bearing on the stomach secretion will be mentioned. My experience is limited to twenty-five cases of pellagra, and in only ten of this twenty-five did I succeed in getting test meals.

CASE 1.—Miss W., native of Alabama, age 29. History of diarrhœa in spring of 1907. I saw patient first in September, 1908, and found present hand and wrist eczema, bald tongue, burning in stomach and diarrhœa, anal excoriations, slow mental action, despondency, but with reflexes about normal; emaciation to an extreme degree. Only one test was made of stomach contents and showed HCl, 0; total acidity, 30; ferments not estimated; mucus in excess. Bile was present during the periods of severe vomiting. Motility not tested. Patient died October, 1908.

CASE 2.—Miss C., age 26; native of S. C. First seen in September, 1908; gastro-intestinal and mental symptoms marked and eczema beginning on knuckles. Patient gave history of sore mouth, nausea and diarrhœa in the spring of the preceding year. Analysis of stomach contents; HCl, 4; total acidity, 28; mucus, in excess; ferments, coagulation of milk delayed. Motility not tested. History of presence of bile during severe vomiting. Died six weeks later.

CASE 3.—Mrs. R., age 35; native of S. C. Had been very nervous for twelve months, and had raw mouth and tongue in the past spring. Saw first August, 1908, and presented characteristic gastro-intestinal signs with staggering gait, but no hand eczema; analysis stomach contents; HCl, 35; total acidity, 80; ferments, normal; mucus, no excess. This patient got better during winter, but had a return of symptoms the following April; still no hand eruption. At this time a second stomach analysis showed; HCl, 10; total acidity, 40; mucus, no excess. The eczema appeared on hands and wrists in the following August. An analysis at this time gave; HCl, 4; total acidity, 28; mucus, no excess; bile absent; motility, normal. Patient still living.

CASE 4.—J. E., adult male, age 31; native of N. C. History of mild alcoholism and of spring diarrhœal attacks for several years; mouth, stomach, bowel and cord signs present when seen in August, 1908. Analysis; HCl, 8; total acidity, 33; mucus, in excess, ferments, diminished; motility, normal; bile present during periods of vomiting. There was improvement during winter, but in May symptoms returned in increased severity and with the presence of the typical eczema of hands, arms and elbows. Analysis at this time gave the following: HCl, 0; total acidity, 24; mucus in excess; motility, normal. Patient died the following September.

CASE 5.—Mrs. W., age 36; native of N. C. Eczema and gastro-intestinal symptoms, marked; locomotion and reflexes, normal; mental action, sluggish. Result of analysis HCl, 4; total acidity, 18; mucus, no excess; motility, normal; ferments, normal. Patient improved under arsenic but had a mild recurrence the following spring.

CASE 6.—Mrs. P., age 34; native of N. C. Gastro-intestinal symptoms, with insomnia and vertigo appeared in fall of 1908. Analysis at this time gave HCl, 24; total acidity, 56; ferments, normal; motility, normal; mucus, excess. In June, 1908, the above mentioned symptoms returned in acute form along with decided hand eruption. Specimen of contents at this time gave no reaction for HCl, but there was excess of mucus. Patient died six weeks later.

CASE 7.—Mrs. E., age 38; native of N. C. Sore mouth, burning stomach and periodical diarrhœa appeared in September, 1907. Analysis at this time gave HCl, 39; total acidity, 76; mucus, not in excess; motility, normal. Patient improved under arsenic and cold weather, but in April had a return of symptoms, with the appearance of hand eruption in addition. Analysis; HCl, 20; total acidity, 42; mucus, no excess; motility, normal. A third analysis in October gave result; HCl, 8; total acidity, 22; mucus, in excess; motility, normal.

CASE 8.—Mrs. M., age 37; native of N. C. Sore mouth and gastro-intestinal signs first appeared in April, 1909. Insomnia and despondency for two years. In August, in addition to above symptoms, began to walk unsteadily and noted also the appearance of "sunburn" on knuckles

*Read before the Pellagra Conference held in Columbia, S. C., recently.

and back of hand. Analysis at this stage showed HCl, 18; total acidity, 40; ferments, normal; mucus, no excess.

CASE 9.—Mrs. B., age 29; native of N. C. Hereditary specific history. Nursed a sister who died of pellagra. Six months ago developed red tongue, distress in stomach and nervousness, with despondency. At present has still the above symptoms and beginning eruption on knuckles. Analysis; HCl, 20; total acidity, 50, mucus, no excess; motility, normal. This case may clear up under specific treatment and prove not pellagra.

CASE 10.—Mrs. M., age 39; native of N. C. Has had diarrhœa and indigestion for two years. In April of this year developed marked diarrhœa, gastric distress and a red mouth and tongue, and case was pronounced pellagra by consulting physician. At present time she is a typical pellagrin. Analysis; no HCl nor total acidity; excess of mucus; bile present.

Summary.

Cases 1, 2, 4, 6, 7 and 10 show a marked diminution in the acid factors of the gastric juice in the late stage of the disease.

Cases 1, 2, 4, 5 and 10 show excess of mucus during the pellagrous periods.

Cases 3, 4, 5, 6, 8 and 9 show normal motility, while in 1, 2 and 10 motility test was not made.

Cases 1, 2, 4 and 10 show presence of bile during severe vomiting pèriods.

This series of cases is too small to allow us to draw any definite conclusions, but the indications are that in pellagra, as in all adynamic and asthenic diseases, the HCl and ferments of gastric juice progressively diminish.

Gall Bladder Disease, With Report of Two Cases.*

By Dr. L. A. Crowell, Lincolnton, N. C.

The term gall bladder disease is used in preference to gall stone disease in this paper because the writer believes that we have infectious conditions of the gall bladder and biliary passages accompanied by a formation of plugs of mucous and insipissated bile as a result of said infection which give rise to the same obstructive symptoms as gall stones and demand the same operative procedures for their relief.

Etiology.—I believe that all gall bladder trouble, stone formation and dust trouble have their origin in an infection of the gall bladder from bacteria of the colon group and in the vast majority of cases from the typhoid bacilli. In all the cases I have seen, and in most of those found in literature, the patient has had an attack of typhoid fever some time previous to the beginning of his gall bladder trouble. We are all familiar with the digestive troubles which so frequently follow typhoid fever, and I believe that a great number of these so-called digestive troubles are due to a cholecystitis produced by the typhoid bacilli.

Gall bladder disease is much more frequent in women than men, and is much more likely to affect women who are fat, over forty and who have borne numbers of children. I am inclined to believe that gall bladder disease in men is rare. I remember seeing but a few cases.

Symptoms.—The most constant and characteristic symptoms of gall bladder disease are pain or colic, chronic digestive troubles, chills, fever and sweats; jaundice and tumor may also be present. The pain of gall bladder disease comes on suddenly without regard to diet, exercise or time of day. It is very severe and lasts from a few moments to six or eight hours, or even longer, and as a rule disappears as suddenly as it comes on. It is located in the epigastric or mid line region, from two to four inches below ensiform cartilage and radiates upward and backward to back and shoulder blades, especially to the right, differing from the pain of appendicitis, which radiates downward rather than upward. In some cases the pain is in the region of the gall bladder, but not so frequently as we would suppose, considering the pathology of the disease. The pain in some cases is located at McBurney's point. This was so in case No. 2, which I am reporting today, and made the diagnosis impossible until an exploratory laparotomy was done.

The pain of gall bladder disease is accompanied or followed by nausea and vomiting. We have those same symptoms in appendicitis, but in gall bladder disease these symptoms of nausea and vomiting are more marked. Chills, fever and sweats are other symptoms that sometimes appear, especially in those cases where the infection or stone is located in the common or hepatic ducts. In those cases in which the trouble is confined to the gall bladder, the constitutional symptoms are likely to be very mild. In fact, the patient may have no symptoms except pain, which may not be severe, with slight tenderness in region of the bladder. It is well always to look with suspicion on all cases of chronic digestive troubles which have resisted all ordinary methods of treatment, for a great many of these symptoms have been found to originate from gall bladder disease.

Jaundice at one time was considered a very important symptom in arriving at a

*Read before the Lincoln County Medical Society November 1st, 1909.

diagnosis of gall bladder disease, but we now know that we can have a great deal of trouble in the gall bladder and biliary passages without having jaundice as a symptom, and the surgeon who waits to see the yellow flag and other grave symptoms, such as clay colored stools, enlarged liver, etc., makes a great mistake and will miss the opportunity of curing the majority of people who suffer from gall bladder disease.

Tumor as a symptom of gall bladder disease, without jaundice, would point to either an infection of the gall bladder cystic duct, with plugging of cystic duct by thickened or insipisated bile and mucous or stone in cystic duct, while tumor with jaundice would suggest malignancy. In some cases of gall bladder disease the symptoms are so vague and misleading that despite our best efforts it will be impossible to make a diagnosis without an exploratory section, but I believe with the proper interpretation of a thorough and carefully taken history that the majority of these cases can be properly diagnosed before operation.

Treatment.—Once the diagnosis has been made either tentatively or positive what shall be the treatment? I say of gall bladder disease as Dr. Osler says of appendicitis "There is no medical treatment." Operative intervention gives the only hope of a permanent cure.

The technique of the operation is deferred and will fully appear and be explained in the cases reported.

Case I.—Mrs. G——; aged 45; height 5 feet; weight 160 lbs. when in health; married 23 years; mother of 14 children and two miscarriages; oldest child 24 years of age; youngest 3 years; no history of uterine or ovarian trouble.

In June last, patient nursed a daughter through an attack of typhoid fever. One week after returning home, patient was taken ill with a fever which kept her in bed several weeks; temperature during this attack ranged from 100 in the morning to 101 3-5 in the afternoon. After this attack of fever, if patient would eat solid food it would give her cramps in the stomach which she attributed to indigestion. During this time she also complained of pain in right hypochondriac region. Patient from this attack of fever felt more or less uneasiness in right hypochondriac and epigastric regions until the night of Sept. 15th, 1909, when patient awoke about midnight with severe pain in these regions, accompanied by nausea and vomiting. Pain radiated around left side to back and around region of heart to left shoulder. Dr. Houser, of Fallston, saw her the following morning and gave her a dose of morphine to relieve pain. He saw her again Saturday morning, Sept. 18th, and discovered a tumor in region of gall bladder extending downward as far as umbilicus. Patient continued to have pain in right side with nausea and vomiting, with slight elevation of temperature, until admitted to the hospital on Tuesday, Sept. 21st. Patient had no jaundice at any time.

Diagnosis at time of admission was tumor of gall bladder with the probability of stone in cystic duct. She was immediately prepared for operation, which was done Wednesday, Sept. 22nd. Patient was placed on table with head raised six or eight inches above her feet. At the same time a sand bag was placed under back at or a little above level of liver. An incision beginning at costal margin and extending downward 5 inches along outer border of right rectus muscle was made. The gall bladder was found and brought into wound without any trouble. Palpation of gall bladder showed it to be moderately full of fluid. Examination of cystic duct revealed the presence of a stone. Common and hepatic ducts were found clear. The gall bladder was walled off by swabs of gauze to prevent soiling of the peritoneum. This being done a trocar with rubber tube attached was pushed into gall bladder, and most of the fluid consisting of bile and pus drawn out. The gall bladder was more thoroughly cleansed by wisps of gauze held in dressing forceps. On introducing finger into cystic duct, a gall stone, the size of a nutmeg was found, which was easily removed by the aid of a scoop. Then a rubber tube about one-third of an inch in diameter wrapped first with iodoform gauze and over this with rubber tissue was introduced into the gall bladder.

The opening in gall bladder was now closed with a purse string suture of cat gut around tube, tucking edges of incision in gall bladder well in before drawing suture tight. A second purse string suture was now introduced in walls of gall bladder, taking a small bite of rubber tissue and gauze of tube at the same time. This second suture when drawn tight further inverted edges of gall bladder and at same time anchored tube. A cigarette drain was dropped into the subhepatic space, the wound closed up in the usual way, using cat gut for all the layers except the skin where silk worm gut was used. The drain in subhepatic space was removed in twenty-four hours. Bile began to discharge from tube within one hour from time patient was put to bed and continued to discharge, quantity diminishing every day till tube was removed on 9th day.

The patient's temperature was normal during her convalescence, except on the

third day when it reached 99 1-5. She left hospital on 25th day with wound entirely healed and in perfect health.

CASE II.—Mrs. C——; aged 46; mother of six children; oldest child 22 years old; youngest 14 months; had an attack of typhoid fever seventeen years ago.

Her health was good until about three years ago when she began to have periodical attacks of pain in stomach and right side of abdomen. These attacks would occur every four or five months at first, but have become as frequent as one a month during the last twelve months. Attacks are sudden in onset, disappearing in the same manner. They are always accompanied by nausea, vomiting and elevation of temperature which some times reached one hundred and six. They usually lasted three or four days and left the patient very sore and tender for several days. The last or present attack came on Saturday, Oct. 16th, 1909, and was the most severe of all. Patient was admitted to hospital Oct. 19th, at 11 a. m., with a temperature of 103, pulse 140, with considerable nausea and vomiting and a great deal of pain in right side of abdomen and very tender and rigid over McBurney's point. Examination of blood negative as to malaria, examination of lungs also negative. Diagnosis after above examination, acute appendicitis with gall bladder trouble as a complication and patient was put on an expectant line of treatment. At eight-thirty p. m., on day of admission temperature 98, pulse 98, both remaining normal through the night. Morning of Oct. 20th at 9:30 patient had chill, followed by temperature of 101 3-5, pulse 136; later in the day patient had profuse sweat with temperature returning to normal, pulse 112; admitting a possible mistake in examination of blood for plasmodium malaria she was given at this time (5:15 p. m.) three grains of quinia to be repeated every four hours. The patient had another chill at 9:40 a. m. on the 21st, followed by fever which failed to subside as it had done for two days previous. At same time pain at McBvrney's point became much more acute and tenderness so much more marked that it was evident that further delay in her case would be unwise. Therefore she was immediately prepared for operation which was begun at 4:40 p. m. The usual vertical incision for appendicitis was made. The appendix was easily found and brought into the wound. It was found, so far as could be seen, normal. But as she had complained of so much pain and tenderness in this region it was thought advisable to remove this organ, the possible cause of trouble. The incision was extended upward to the costal margin. The gall bladder was palpated and stones were found therein. It was brought up into the wound, incised and 400 stones removed. The technique in this operation was similar to that in case No. 1, except in this case drainage in subhepatic space was omitted. Bile began to discharge one hour after patient was put to bed and averaged three ounces per day for nine days when tube was removed. Patient has had no chills nor sweats since the operation. Fistula healing very rapidly and patient will be able to leave hospital in a few days.

I neglected saying that this patient had had no jaundice with any of the attacks except the last, when her conjunctiva was slightly tinged.

Some Clinical Studies on Pellagra.

By C. S Pixley, M. D., Winnsboro, S. C.

In studying the literature on pellagra accessible to me, the scarcity of information as to its beginning seems remarkable. It is all concerning the last end of bad case with plenty of organic lesions well established.

My efforts will be to supply some informs ation about the early stages of these troubles. If these are not satisfactorily proven, the errors can be shown, and we may have made an advance towards an understanding of these causes, in South Carolina.

Guided, or misguided, in preparing this paper, I followed this "proposition":

1. Pellagra is a "condition" dependent on the frequent and long continued ingestion of fat, which is rancid, or infected, before or after entering the stomach.

2. Upon this hypothesis, this disease is rapidly and easily cured in the first stages.

3. Upon this hypothesis, the severe cases in the second and third stages are more easily and surely benefited.

4. The symptoms will depend upon the variety of the bacteria or germs, which will flourish in the solids and fluids of a lowered alkalinity. This is assumed from clinical data.

5. This hypothesis explains the distribution of this disease in many locations, among so many different classes of society, where the diet is different, but the ignorant housewife, or the careless servant permits the indefatigable houseflies to infect, with their feet, the butter and the lard. I accuse the common housefly of being the active agent in spreading pellagra, through rancid fats, helped by the carrion Crow, the Buzzard and the Vulture, in localities where they live. as the mosquitoes are in yellow fever and malaria, the rats and squirrels in bubonic plague, dogs in hog cholera, and haired and furred pets in diphtheria. Referring to the Brit. Ency. Art. Pellagra,

Dr. Petit, in an official report, says of the conditions of the peasantry in the pellagrous district of Gironde: "They are slovenly and sleep in their clothes. Maize enters largely into the food of the people, which includes a little rye bread, sour most of the time, a few sardines and rancid lard."

We have pursued the disease symptoms supposed to be due to the use of spoiled maize for many years. Let us consider those due to rancid fats, and their derivitives, in diets for a short time, and the disease will appear to be an exception to the usual methods of germ infection. It puts the disease in a class by itself, so far as I know, in which "chemical"—to use an old term—or germ decomposition of fat is the very beginning of the after troubles. To the layman, it makes no difference beyond emphasizing the necessity of being more particular as to what is used for food. To the doctor, it changes materially the "line of march." It gives him a base of treatment which, I hope to show, will reward his advice and prescriptions with full and complete success. If it will do this, the truth or error of the theory is not of material importance, although it will be more satisfactory, if both agree.

The diet of a hard working man or woman should consist daily of an intake of about 7 oz. of albuminates, 2 oz. of fats, and 21 oz. of starch or carbohydrates, with water and mineral salts. These should be moderately free from agents of decomposition—prepared artificially for easy and rapid digestion and placed in a stomach that is in fair working order, to avoid a tremendous number of evil consequences, should these conditions not be met.

The symptoms of pellagra are:

1. Gastro-intestinal; nausea, acid dyspepsia, sour or bitter vomiting, constipation or diarrhœa, stomatitis, with more or less red mucosa, apthous ulcers, distressing salivation (with thick pasty saliva) and pyrosis.

2. Nervous manifestations; vertigo, pains and "swimming in the head," roaring in the ears, symptoms from the upper, middle and lower regions of the spinal cord, tenderness over the dorso-lumbar intervertebral spinal nerves, as they emerge from the spine, decrease, or loss, of leg reflexes, increase of reflexes of the upper extremities, spastic symptoms, disturbed sensations and sphincter paralyses, sclerosis of the lateral columns of the cord, lesions of the posterior columns, and degeneration of the posterior roots, in long continued disease.

3. Mental symptoms; confusion, weakness of judgment and will, anxiety, disorientation as to time and place, alteration of disposition from slight depression to hypochondria, melancholy and suicidal tendency, self depreciation and delusions, refusing of food, mania, restlessness, apathy, or catalepsy. Disturbances of sight and hearing are common, mutism is frequent (see second case), and terminal dementia. These latter terminations are found in about 3 to 5 per cent. of the cases.

4. The cutaneous symptoms are not found early in the trouble. Instead of being the initial symptom, the erythema of the dorsum of the feet, forearms and hands—symmetrical—resembling sunburn, little or no swelling, a red blush becoming deeper in color, sharply defined, which appears late in the disease. The affected surfaces soon become dry and scaly, leaving the skin dry, sometimes cracked and fissured, or eczematous. Skin manifestations have been found in chronic digestive disturbances from time immemorial. Two forms are recognized: The acute or typhoidal, which runs to a fatal end in a few weeks, with fever, delirium, and uncontrollable diarrhœs, due to acute rancid fat intestinal toxæmia, and the mild or chronic or recurrent, which results in inflammation of the sheaths of the dorso-lumbar intervertebral nerves as they emerge from the spine: In disturbances of the auditory, optic and gustatory nerves and those of general sensation, with skin involvement, shown in erythema, eczematous inflammations and gangrene, equally hopeless and helpless, as are the final terminations in disturbances in the use of nitrogen and hydrocarbons. Thus completing the cycle. I notice three subdivisions in this latter form: Pellagra proper; pellagra sine erruptione, and pseudo pellagra. This second type runs for twenty-five years or more. With each recurrence, anemia, debility and emaciation increase, and the other symptoms advance. The recurrences do not occur at regular intervals, and, excepting in the typhoidal form, the patients have no elevation of temperature unless it is due to some complication. We now try to locate the initial disturbance in the fat contents of the food.

The first argument against other infective sources is the admitted failures in treatment based upon them for nearly one hundred years. Let us abandon a trail that has always terminated in the grave, and explore new fields.

First, we note that these patients avoid fat in their diet as a source of serious discomfort. Some of them have learned to avoid corn also for the same reason, although they do not know that a large percentage of corn is fat, sometimes approximately ten per cent. I suppose that vegetable fat is exposed to the same laws of de-

composition as that derived from animals.

The infective decomposition of the nitrogenous portion of our foods (either before or after ingestion) results in the fotmation of leucins, ptomaines, etc. These, when taken into the stomach, produce high temperatures, running from 104 to 115 F. It is usually an acute process and the high temperature suspends vital functions, unless quickly relieved. Chronic incomplete oxidation of nitrogen tends to inflammation of fibrous structures of joints, aponeuroses between muscular layers, and of the heart and lungs. Also to troubles with the kidneys and arteries, and the optic nerve, terminating in hopeless, helpless, arthritis deformans. The defective digestion and assimilation of starch results in an acetous fermentation, with its attendant distention of the digestive canal with gases sweet or slightly acid, with slight disturbances of temperature, colics, etc., of slight importance, unless it becomes chronic and terminates in diabetes, or other troubles of that kind, and skin involvements of carbuncle and furunculosis. It is usually easily remedied, unless mixed with a rancid decomposition of the fats, which soon overshadows it, and controls the situation. To my mind, the products of starch decomposition are not as apt to contaminate the fat contents of food as vice versa. When rancid fat gets into the stomach, the conditions become exceedingly troublesome. The complete and permanent removal of the resulting volatile fatty acids is a task requiring time, patience, reflexion, and pure remedies well handled and a proper diet, and recurrences or relapses are frequent and long continued. The fatty acids resulting from the germ destruction of fats are oleic, stearic, magaric, but the *volatile* fatty acids, of which there are nine derived from fats and oils, headed by Butyric acid, which saturate the body and its fluids, like chloroform and ether, are of first importance, and must result in lessened alkalinity of the body generally. In Brande and Taylor's Chemistry, published about 1875, a short note mentions the ingestion, by Dr. Lared, of Butyric acid, experimentally, with the incident production of pyrosis and cardialgia.

I wish particularly to draw your attention to these symptoms produced by this experiment, as I think they are prominent symptoms found in the early stages of pellagra. A condition resulting should be one of decidedly reduced alkalinity of all the solids and fluids of the body. This is shown by the fact that all these patients were free users of bicarbonate of soda, self prescribed, in spite of their expressed fear that its use tended to "eat out the stomach." These results will be more or less pronounced as the trouble is more or less acute and prolonged.

In April, 1904, I began keeping brief records of cases. About a year ago, the frequency with which the word "pyrosis" appeared in my notes attracted attention. The meaning of the term "pyrosis" in my mind was the eructation of air or fluid from the stomach to the mouth of more or less acid reaction, and cardialgia, due to rancid and volatile acids in the stomach and duodenum. This definition resulted from a long continued personal suffering with these symptoms about forty years ago, in spite of varied combinations of medical talent and remedies used at that time. The use of these words was steadily increasing in my records. I, with many others, attended the first pellagra conference held in Columbia a year ago. We inspected the numerous patients present. They were all in the advanced stages of the disease, and every one will recall the helplessness and hopelessness presented by them. I had been taught that the eruption on the posterior surfaces of the forearm and hand, nearly symmetrical, was the initial symptom, which appears to be the generally accepted conclusion at the present time, although pellagra without the eruption is mentioned. This initial symptom had never yet appeared in my work. September 7, 1909, it came in what I called "my awakening case." It was of Mrs. S., aged 30, white, blonde, married, mother of four children, last confinement four years ago. She had been dizzy six months, pains in upper, left ant. thorax, going to shoulders and arms, and in throat, fair appetite, costive, slight fever, "pyrosis," salivated (not Hyd.) high colored urine, frequent dysuria, last period three weeks ago, three days, no pains or distress, diarrhœic attacks at times, roaring in the ears, mental confusion, dry scaly eruptions on lower two thirds of backs of forearms and hands, to the metacarpophalangeal joints. This has appeared in the same location three or four times. The skin at site of eruption is decidedly darker than elsewhere on the body. She does housework, is not out in the sunlight, has been in bed six or eight weeks, and lives on corn. She has severe pains in back of head and neck, the muscles of which seem stiff and act slowly, with pain. The pupils were moderately contracted. She has lost about forty pounds in weight in the last two or three years. The pulse rate is 76; T. 986 10; Sphyg. 100. She is salivated (not mercurial) and markedly depressed. She has steady "burning" in stomach, throat and mouth. In the latter two cavities the mucous membrane is intensely red. I

howed the case to Dr. Buchanan the next ay. After examination, he said: "If this ruption is not sunburn, I think this is a ase of pellagra." The lady had not been xposed to the sunlight at all.

The next case, Miss W., was white, ngle, aged forty-five, house-keeper, all er life croupy. She thought that three onths previously, while eating chicken, a one had lodged in her throat. This swell- d so rapidly at once that breathing became bored. She had no cough, but pain in er throat in swallowing solids. The at- nding physician could find no foreign ody in the throat, but began treatment for berculosis of the larynx. She had diar- hœa in May, June and July; has not men- ruated for two or three years. No blad- er troubles, always nervous, "pyrosis," our stomach, cardialgia, voice a whisper, o cough or expectoration, no loss of weight. doubted the diagnosis of tuberculosis. ie showed evidence of past tubercular oubles at apices of lungs, but they were iet now. The throat and mouth were in- usely red. Pulse 84, temperature 99.8. ie was treated as were the other pellagra, rancid fat patients, and in three weeks er pulse was 72 and temperature 98.6 at 7 m., while she was gaining rapidly in ery way. The treatment will be detailed ter on, but to it was added the static olet discharge, and the arc light to ex- rior of neck, which gave rapid and pleas- t improvement. I could then find no gns of active tuberculosis.

We turn now to the case of Mrs. O. B., ho consulted me June 29, 1906, white, age , married, one child six years ago. Nursed ild three years and lost flesh and strength arkedly. Her menstruation always regu- r from confinement. Each period seven ys in length, with profuse losses and lit- e pain. For eight years, back ached hen she was overheated. In micturition s delay in starting urine. Slight uterine ucorrhœa, bowels regular, color of pass- es normal, anorexia, "Pyrosis," nausea d cardialgia. Pulse 100, every day head- hes, frontal or right side. Uterus retro- xed and prolapsed. Intense tenderness er right dorsal and lumbar intervertebral rves. Anemic, leucocythemic, melan- olic, lives on biscuit and butter, and drinks tle fluids.

We turn now to the case of J. B., colored, enty-five, married, a farmer. Consulted e September 18, 1909. Has been sick ree weeks, but for a month or more before at had light chills and fever every day. r three weeks has had difficulty in walk- g, and pain in back of neck and head. nnot walk, because of inability to co- linate muscles rapidly enough. Knee reflexes absent. Has lost forty pounds of flesh in six or eight weeks (which I think required much longer than that). "Pyrosis," mouth always sore, cardialgia, pupils myotic, good habits, soles of feet slightly more sensitive than in a case of locomotor ataxia (at an apparently similar stage), which came into my mind and might have remained there but for that word "pyrosis," etc. He has lived on cornbread and bacon, good, bad, and indifferent, all his life, and cannot remember when he did not have "sour belching." This was his only visit to me, so I cannot report progress. Please notice how the word "pyrosis" occurs in these records. The case of complete, sure pellagra determined my investigation of the records of cases in which this word occurred so frequently as to attract my attention and this is the result. In five years about 300 cases of "rancid fat" had presented.

I do not think that every case in which "pyrosis" is present is pellagra, or that they will all become pellagrous, as the stomach disturbances will limit the diet of these patients instinctively, reducing suffering and prolonging the early stages of the trouble, even bringing about a convalescence, which, however, does not confer immunity. But, in such a case, *when the clinician detects involvement of nerve cells or nerve fibers, or nerve sheaths, then it is a case of pellagra without the eruption. When he detects involvement of the skin, then it is complete pellagra.* The germ appears to be in the fat, not in the patient primarily, and the treatment of the patient for original germ troubles will be at best only modifying. Remove the germ laden fat from the diet, care for the acid condition developed in the patient, clean out and keep clean the body of the patient inside and out, see that clean nourishment, such as the patient needs, is provided. Help the case along with proper medication and satisfaction will result. This brings us to the treatment. I do not recommend any formula, or cut and dried treatment, but a plan which any physician can carry out to suit the case. A review of the various treatments used in pellagra by those who have had the largest number of cases to care for shows the universal tendency to return to arsenic as being the only remedy that will accomplish anything for good. This proves the accuracy of "our fathers in medicine," who wrote that "arsenic is inimical to all forms of vegetable life," and they knew little of microscopic life. But, in this form of life, also, arsenic still "holds the straits." Their descendants have improved its hold by combining it with copper, as will appear shortly. Whether the latest rival to arsenic, the sulpho-carbo-

late of copper, will succeed or not remains for future determination.

I had treated what I now think were the earlier symptoms of pellagra, as the conditions of the patients appeared to require. The diet was adjusted as best we could, and all of the patients were cured or relieved and satisfied, although recurrences were frequent. My Rx for my advanced case was more developed than for the group of symptoms, which I had previously met. The principal change was: to the more chronic disease an acute treatment was adjusted *to effect*, then the treatment was made as chronic as the disease. I find a complete change in my remedial measures since 1904. The arsenates are used more than ever, of which arsenate of copper, or strychnia and quinine are more frequent ingredients of my prescriptions.

I wish to insert a few words regarding the arsenite of copper, which heads, to my mind, the list of destroying agents for the germs producing decomposition within the human body.

In about 1873, one Harlow Lee, aged 20, worked in a drug store, which did a tremendous business among the farmers in the sale of Paris green as a destroyer of potatoe bugs. It was their custom to mix the ingredients of this Paris green on an upper floor of the store with a scoop shovel, and the air inhaled by the mixer was full of arsenite of copper. After about two weeks he was taken suddenly sick and died in about 20 hours from the beginning. One year after his burial the body was disinterred and showed no signs of decomposition. The processes of decay had been completely stopped and I presume have been held in abeyance ever since. I have used arsenite of copper since, in remedial doses, to check decomposition in the human body, and it never fails to answer to my call. In my use of it, in chronic cases, it is always administered in conjunction with laxatives of sufficient activity to produce one or two half formed stools in the 24 hours. A slight excessive action of the cathartics is preferable to slight insufficiency, when using this drug. My idea is that it distributes the copper along the intestinal canal, when, otherwise, its sterilizing action might be circumscribed. Be that as it may, the combination of copper and laxatives works well in practice. It may be combined with Leptandrin and Euonymin, or with Podophyllin and Juglandin, or any of the salines, which appear desirable. In acute cases, it is combined with more active doses.

Returning again to the treatment: after the preliminary cleaning out, with some, or all of Podophyllin, Juglandin, Leptandrin, Euonymin or the salines, with which is associated arsenite of copper, arsenite of strychnia, and hyosyamine (which is added to control pains in the intestinal canal), the patient is given the compound sulpho-carbolates, with other laxatives, if necessary, until the digestive tract is as germ free as it possibly can be made. Then the above medication is reduced in frequency to maintain what has been gained, and each meal the patient takes is preceded or followed or both, as necessary, with sodoxylin (which is a compound of Sod. sulpho-carbolate, Sod. sulphate, Sod. bicarbonate, Colchicine, Juglandin, Xanthoxylin, with aromatics), or with sulphide of arsenic, and the diet is prescribed. This is free from hog fat, hog meat and corn, (because of its fat contents). Shredded wheat, oatmeal, eggs, chicken, fresh buttermilk, vegetables properly prepared, are staples used, and I think the soy bean would be an excellent addition to the pellagrin's diet. If the condition of the patient demands fat, this is used in the shape of oil inunctions. Alkaline baths give great comfort to the patient.

I will read the formula used in my complete case of pellagra and the results from time to time, and you can judge for yourselves.

Referring to the records, this patient, on September 7, received as a "starter" Pod. 1-6 grain, Jug. 1-6, Lep. 1-6, Cop. Arsen. 1-1000, Hyo. (amorph) 1r250, Quin. Arsen. 1-6 in a capsule at a dose. Six of these doses were given at hourly intervals, accompanied by five grains of the compound sulpho-carbolates with each dose. After the six doses were finished, the same dose of sulpho-carbolates were continued hourly for 36 hours. September 8, the patient feels vastly better, and the following was prescribed, to be taken at bedtime: Lep. 1-6, Jug. 1-6, Strych. Arsen. 1-134, Quin. Arsen. 1-2, Cop. Arsen. 1-500, Emetine 2-67, and the compound sulpho-carbolates every two hours. The eruption on the fore-arm and hands was disappearing, and the salivation lessened.

September 9, greatly depressed, awake all night, but ate a good breakfast. Was used the Static M. W. C. to spine and back of neck, twice daily, which added to her comfort. Also ordered nightly inunction with cotton seed oil and Cic. Hydrob. 5-6 at bedtime, followed by alkaline warm bath in the morning, and Arsen. Sulphid. 4-67, after meals.

September 11, "Could eat every hour." September 12, decidedly improved, but says she feels worse. Returned home—out of town—to continue medication. September 15, improved, every symptom much lessened in intensity, excepting the insomnia. September 20, "I am better in every way, lo

tter in every way." More strength, sleep tter, good appetite. Ordered Bovinine, o teaspoonsful after meals. Former medi tion continued. September 28: Gaining pidly in strength, cheerfulness and rest lness, belches sweet gas occasionally. nother fact present in all these cases after ginning this method of treatment was a scontinuance of the use of bicarbonate of da, of their own free will). Eruption can felt, but not seen. Begins again her ht household duties. Seems thoroughly nvalescent in three weeks or care as out ied above. She has slept as satisfactorily r the last three nights as ever in her life. tober 29: She seems well except stiffness muscles of back of neck, and slight ten rness along eleventh and twelfth dorsal tervertebral nerves on both sides. Eats d sleeps well. Will she continue to im ve? Time will tell.

Referring to late-stage cases, in the hos tal, in which I have little experience, I n only suggest that, in addition to a ronic treatment, as outlined, with a diet nited in fat, that the different electric ydalities can be used to advantage, and, eoretically, arc light baths will show value assisting the blood to return to the normal pportions.

Also, I would like to suggest the com nsatory tonic action on the nerve cells, at have not degenerated, by the Hawley imal lymph. It ought to accomplish nders in such cases. In the typhoidal pe, I would like to suggest sodoxylin bbott), Strych. Arsen., Atropine, Copper sen. rapidly to effect: as diet—none—un the patient is better, then a fat free diet best suits the case.

Before closing, I must mention the case Mrs. McG., from Mississippi, who con ited me September 20, 1909. White, mar d, fifty years of age. Recorded symp ns were; Roaring in the ears, one year. first at night, but for the last month both ght and day, although worse at night. ontal head pains every day also, for a ar. Anorexia, caustive, constant pain der right scapula, gastric flatulence, ter eructations, lumbar pains, brown col ed spaces on posterior surfaces of fore ns, evidently the remains of an old pella ic eruption, which had been present re for four years. The same plan of atment, as previously outlined, gave ick relief to the symptoms. In some ses, an insufficiency of liver or pancreatic ion will be shown as they progress, call for medication and diet adjusted to such nditions. These notes show that I have l, in four years, about 300 "rancid fat" es presenting more or less of pellagrous mptoms. Among these were 12 cases of very complete pellagra without eruption, and one case apparently complete in all its details. My definition of a "pellagrin" today is a person who has been saturated with volatile fatty acids. He or she must ever afterward pay the price of eternal dietary, and intestinal antiseptic vigilance, or suffer acute, sub-acute, or chronic attacks of various kinds.

The criticism has been offered that "rancid fats" "has been threshed out over sixty years ago, and nothing was in it." This "re-threshing" has been done unwittingly, and more comfort, relief and curative success for the sick has been found than experts have been able to offer so far as their recorded experiences show.

Ectopic Gestation—With Report of a Case of the Abdominal Type.

By John Egerton Cannaday, M. D., Surgeon to the Charleston General and McMillan Hospitals.

Extra uterine pregnancy is productive of one of the gravest emergencies the surgeon is called on to treat. This abnormality was probably first described by Albucasis, an Arabian physician of the eleventh century. Late, described by Riclanus. Abdominal section probably first done for this condition by Nufer in the year fifteen hundred. Mauriceau in 1669 clearly described the condition. Demeiris in 1836 gave the world a classification used today. Lawson Tait was the first surgeon who had a wide operative experience in this condition and he was able to set his brothers an example of success to follow.

The frequency of this condition varies much with the individual statistics of different operators. Some claim as many as one out of every hundred cases while others have found only one in twenty thousand. In latter years there has been an apparent increase in the number of cases. This is probably due to several causes, among which may be mentioned more knowledge concerning the subject, growing popularity of operative treatment, probable increase of gonorrhoea, and the commonness of abortion. There can be no doubt that in former times many cases went unnoticed and that even now cases are not infrequently overlooked. The true nature of many cases of haematosalpinx, haematocele and blood Cyst of the ovary is misunderstood.

Formerly many cases of ectopic pregnancy were considered to be primarily abdominal, Latterly, since we have come into a more exact knowledge of the subject, the secondary form has been considered the rule and the primary form the exception in abnormal pregnancy. Nearly all cases have followed tubal abortions. A few writers on the subject have gone so far as to deny that such a

thing as primary abdominal pregnancy ever occurs.

The most trustworthy statistics on the subject tell us that eight and one-half per cent. of all cases of eccyesis are abdominal in character. In the primary form the ovum falls into the peritoneal cavity and becomes fixed there. The secondary form arises by rupture of a salpingocyesis by which either the fetus alone or the whole product of conception is thrown free into the abdominal cavity. At the time of occurrence of the tubal abortion the placental attachment to the tube must remain in whole or at least in part undisturbed until new attachments and a new circulation can be formed.

Etiology.—The specific cause of an individual case is exceedingly obscure. Generally speaking whatever condition that prevents the passage of the ovum to the uterus, but which does not prevent the passage of the spermatozoon to the ovum may bring about this state. Most cases occur between the twentieth and thirtieth years of life. To classify causative factors we have malformational (congenital or otherwise) and pathological conditions of the tube. Under the first class we have diverticuli, etc. Under the second class are any and all inflammatory states which will result in hyperplastic or neoplastic tissue, these conditions leading to obstructions of the lumen of the tube. The ciliated epithelial lining of the tube may be destroyed and the walls of the tube infiltrated. Inflammation bands of peritoneum may distort or compress the tube. Thick mucus in the lumen or the external pressure of an abdominal growth may block the way. Recurrent cases are rare, A large number occur in women who have been relatively or completely sterile. The average time elapsed since last pregnancy was four and one-half years. Occurs most often in multiparous women. It is more likely to follow a full term pregnancy than a miscarriage or an abortion. It is generally conceded that extra uterine pregnancy is due to mechanical defects of some sort. As in many respects abdominal pregnancy is but the variant of a general type I will consider the subject of ectopic gestation as a whole.

Pathology.—Under the primary forms we have (1) ovarian (2) abdominal (3) tubo-ovarian (4) tubal which is divided into ampullar, isthmial and intestial. All in accordance with the location of the conception product. The ovum develops usually toward the outer end of the lumen of the tube. As it grows the sides of the tube expanding become much hypertrophied and assume a spindle shape. The growth is not regular and even, and some parts may be thin and easily ruptured. This usually takes place at the upper portion of the tube. The ovu is usually surrounded by the amnion an the chorion, The latter being fixed by i villi to the mucous lining of the tube. On ing to the comparatively brief stay of th ovum in the tube a true placenta is n usually formed there. A hyperplasia of th tubal tissues forms a sort of pseudo decidu the uterine extremity of which at times found open in continuation of the uterin cavity. By reason of the loose attachme of the chorionic villi, they are easily lacer ted causing hemorrhage which often pr duces rupture of the tube. Tubal aborti is apt to occur before the end of the secon month. The conception product seldo escapes from the end of the tube and usual is freed by rupture. In a few cases ruptu does not take place and a fleshy mole formed similar in nature to that which sometime formed in the uterus. The p mary abdominal form occurs when t ovum becomes fertilized in the abdomin cavity. Occasionally the ovum becom implanted on the fimbria ovaries, or it m become fixed to the bottom of the Cul Sac of Douglas, either of the iliac fossae to the intestines. Tuholske reports a markable case in which the attachment w mainly to the under surface of the liver, t case going nearly to term.

The surface of attachment in the beg ning is necessarily small but the placen after it begins to form rapidly radiates a becomes attached to numerous points. T peritoneum under the ovum becomes mu congested and thickened, a sort of cyst w is formed which contains many blood v sels. This surrounds the ovum and for a false decidus while within the uterus true decidua is formed.

The secondary form may occur after rupture of an extra uterine or intra-uter pregnancy and the escape of its contents i the abdominal cavity, provided the circu tion and nutrition is maintained the emb continues its growth in whatsoever part the abdomen it has lodged. Fetal me branes are developed about the ovum wh the placentan may or may not change site and attachments. In the uterus changes are much the same as in nor pregnancy. For the first three or f months changes of the endometrium hypertrophy occur after that the uterus mains practically at a standstill. Abs tion is the fate of the fetus that has b extruded into the abdominal cavity un conditions favorable to a continuance of circulation remain. The escape of the fe from the tube usually happens between eighth and twelfth weeks.

The termination of metacyesis in treated cases when not fatal, as m

of them are, often insures for the patient a life of invalidism. The fetals parts, in event of the survival of the individual, may ulcerate into the bladder or intestines or through the abdominal wall. The presence of a dead fetus acting as a foreign body will most naturally bring about numerous adhesions with the varving results that follow in their train. The sac containing a living or dead fetus is apt to rupture sooner or later. The woman may succumb at once from severe hemorrhage or die later from the anaemia produced by successive hemorrhages. If the ruptured cyst contains a dead or petrified fetus death from peritonitis is almost certain to follow. It is quite possible at the end of a primary or secondary abdominal pregnancy for rupture of the cyst and escape of the fetus to take place without provoking either hemorrhage or peritonitis. The final fate of the dead fetus is quite variable. If death occurs during the first months the fetus may be completely absorbed. At a later period this disappearance cannot take place. Suppuration and partial liquefaction, conversion into adipocere, mumification or calcareous infiltration with the formation of a lithopaedion may result. The cyst may especially in old cases ulcerate or rupture through the abdominal wall, into the intestine, vagina, bladder, uterus or by various channels. The greatest number the first named channel and the remainder following in the order named.

The symptoms are divided into those common to all varieties and those peculiar to individual varieties. Of the first class are the reflex symptoms that belong to all normal pregnancies. The nausea and vomiting are commonly severe and begin usually early in pregnancy. Two symptoms specifically point to extra-uterine gestation. They are the bloody discharge and the abdominal pains which are as a rule colicky and sharp, they start from the region of the tumor and radiate downwards and outwards. These pains may be in about the first and second month and last throughout pregnancy. The acme of their severity is about each menstrual period and there may be an intermission of entire freedom from them between the periods. During these attacks of pain the abdomen may be swollen and tender to the touch. The pulse is accellerated but there is no temperature rise. The bloody discharge from the uterus occurs in a majority of cases. This phenomenon is usually accompanied by pain and the expulsion of the decidual membrane. This discharge is due to rupture of the decidua, is sero-purulent, coffee colored or red and may be apparently so profuse as to call for the tamponade. In the primary abdominal type there may be no disturbance of the menstrual function. The return of the menses is indicative of fetal death. The rectum may be irritable and pulsation can often be elicited by vaginal palpation. The most typical system is metrorrhagia coincident with the symptoms of pregnancy in its early stages. If associated with this there is a discharge of decidual tissue one should expect extra uterine fetation.

False labor may be premature happening at the seventh or eighth month but usually makes its appearance at term, rarely afterwards. At that time the patient has intermittent pains analogous to true labor pains. The cervix does not become obliterated but dilates sufficiently for the entrance of one or two fingers. After the decidua is expelled the pain ceases and does not return unless there has been a rupture of the fetal sac. The signs of labor will disappear and milk will come in the breasts.

The symptoms of rupture are sudden and severe pain radiating over the abdomen, rapid, weak pulse, air hunger shock and other concomitants of hemorrhage. There is apt to be nausea, hiccough and extreme tenderness of the abdominal walls. The escape of the fetus from the tube without much loss of blood is marked by severe pain referable usually to the side, tenderness of the abdomen and often a temperature rise. The rupture may be spontaneous or provoked by some slight trauma.

Physical Diagnosis.—The os and cervix are often soft and either firmly confined by adhesions or pushed entirely out of their natural position by the rapidly enlarging cyst. Fetal pulsations may be felt through the vaginal wall and the fetus can at times be outlined in the same way. There are two tumors, one of which is usually situated to the right or left of the median line. A sulcus between the adventitious body and the cervix can be made out. In some cases the fetus is palpable through the abdominal wall. On manual examination of a cyst containing a dead fetus of considerable size crepitation of the bones may be obtained. The uterus remains stationary in size after the fourth month. Fetal heart sounds and movements are discernable after the fifth month.

Diagnosis.—The diagnosis is nearly always difficult and cannot be made with certainty during the first period. At that time the diagnosis of probability constitutes an ample reason for surgical interference. It may be taken for ovarian cysts, fibroid tumors, several forms of salpingitis and hematocele. It may possibly be differentiated from these by the history, the malposition of the uterus and by the disturbances of pregnancy. In the second period of pregnancy diagnosis is not so difficult but it is

nearly always impossible to distinguish one variety from another. In making a diagnosis we have what we can elicit from, the story of the patient in her own words, her replies to minute questionings, and a physical examination. After the escape of the fetus from the tube and the beginning of the secondary abdominal type, the acute symptoms may subside, but there are apt to be recurrent attacks of pain. An apparently normal condition necessarily tends to throw the physician and patient off their guard. The diagnosis is naturally difficult because of the irregularity of the symptoms, the frequency with which it is stimulated by other conditions, and the ease with which the bleeding with or without expulsion of the decidua may be taken for an ordinary abortion. Probably there are few conditions more plain to the careful observer than a typical case of exfetation but comparatively few cases are typical. The diagnosis of abdominal pregnancy is rather rarely made prior to false labor, for the reason that the physician's attention is seldom called to the case. We should regard sudden collapse associated with pallor and other symptoms of intra abdominal hemorrhage in any woman having a possibility of pregnancy as prima facie evidence of ruptured etopic pregnancy. A period of amenorrhoea usually precedes the bloody discharge which does not correspond in nature nor necessarily in in point of time with the natural monthly bleeding. Important points relative to the bleeding are the color, the persistence and presence the of membrane of pieces of membrane. Among the most characteristic symptoms are the variable period of amenorrhoea, irregular uterine hemorrhage, pelvic pain and discomfort, and the shedding of the uterine decidua.

Prognosis.—Abdominal pregnancy means death to the fetus in nearly all cases and to the mother in one half the cases. Club foot and other deformities are apt to be present in the child owing to the deficiency of amniotic fluid and the pressure on the sac walls. The outcome in untreated cases not ending fatally, is chronic invalidism.

Treatment.—The first reported, definitely planned operation after a specific diagnosis was performed in 1885 by Veit of Berlin. Immediate operation is advisable if a diagnosis can be made during the first period or even if there is a suspicion of exfetation, which is backed by good circumstantial evidence. After the fifth month has elapsed and the fetus is still living if its preservation is deemed desirable the woman should be kept very quiet in order to minimize the chances of rupture and to give her an opportunity to go to term. This pregnancy is like a mine—ready to explode without a moment's notice and it is highly important that the patient be in easy reach of competent surgical skill at all times.

It is nearly always best to approach these pregnancies by a median laparotomy. Complete removal of fetus, membranes and placenta is highly desirable. By reason of dense adhesions great danger of hemorrhage or dangerous condition of the patient the above procedure will at times be impossible under such circumstances the edges of the opening in the sac should be sutured to the parietal peritoneum and the sac carefully drained. The placenta in such cases will come away gradually by fragments, and in two or three weeks its exfoliation will have been complete. Surgical intervention should take place as early as possible after the death of the fetus. If the cyst in such case is in the Cul de Sac—vaginal section is appropriate; after the extraction of fetus and placenta the cavity had best be packed with a five per cent. iodoform gauze. I wish to urgently emphasize the absolute necessity for removal as early as a diagnosis can be made and the stringent indications for immediate operation when we see a pregnant woman showing symptoms of intra-abdominal hemorrhage.

Report of Case.—In connection with the above I will report the following case. The patient, S. J., a young married woman 28 years old, was referred to me by Dr. C. W. Lemon of Claremont, W. Va. She had not been under the immediate notice of the attending physician much of the time. He had been called on occasionally to prescribe for abdominal pains of a rather vague and indefinite character. The patient was of a comparativefy ignorant and unobservant type. The true nature of the trouble had so far gone undetected. The woman considered herself pregnant about six weeks when she entered the hospital March 28, 1906. She, according to her statement, had been suffering a good deal from indigestion associated with nausea, her monthly periods had been irregular and painful for some months, and that the last month had been especially painful.

On surgical examination I found a large mass posterior to the uterus which apparently extended up well into the pelvis, a uterus which in enlargement appeared to resemble closely that usually found about the fourth month of pregnancy. This organ was low in the pelvis and fixed in its position. There was considerable pelvic tenderness, fetal heart sounds could be heard and the case was diagnosed as one of abdominal pregnancy. The heart, lungs and kidneys were normal so far as could be ascertained at the time. Several times there was an evening rise of temperature but on

no occasion did the temperature rise above 100 F. The stools were regular, percentage of hemoglobin about normal. As the patient was quite comfortable when in a sitting or lying position and as she was quite desirous of prolonging the pregnancy I decided to keep her under observation for a time. Seven days passed without a particular event, although the patient suffered some and was occasionally nauseated. The evening of the seventh day the patient had a very severe pain in the abdomen but did not mention it for fear of having to undergo an operation. The next morning about 7:30 trouble began. The abdominal pain was agonizing, the symptoms of haemorrhage were typical and severe in character. The radical pulse became almost imperceptible. Adrenalin in saline solution was administered every fifteen minutes hypodermatically—750 c.c. of saline solution was administered by hypodermoclysis. The patient was prepared for operation which was begun at 8 o'clock a. m. At this time the pulse was running from 150 to 160 per minute, respirations 48 to 54 per minute. Another 750 c.c. of saline was administered during the operation which lasted for 35 minhtes. Operation Median laparotomy. The fetus, its cyst wall and the placenta were removed as rapidly as possible. The placenta had been ruptured and there was a great deal of free blood in the abdominal cavity. Some of it clotted, indicating previous hemorrhage. The tubal attachments of the pregnancy were slight indicating either a primary abdominal pregnancy or an early rupture of the tube. The placental implantation was extensive including right ana left pelvic walls, rectum, posterior surface and fundus of uterus, omentum coils of small intestine, sigmoid colon, bladder and parietal peritoneum of the abdominal wall. Injuries to bowel were repaired and denuded areas covered so far as practicable. The blood was removed hy dry sponging and the wound of the abdominal parietes closed by layer sutures of chronic gut without drainage. The fetal development would indicate that the twenty-second or twenty-third week of growth had been attained. The fetus was ten inches in length and weighed one pound and two ounces. The cord was twelve inches in length. As the placenta was removed piecemeal, it was difficult to get a correct estimate of its size and weight.

Another hypodermoclysis of saline solution was administered. The pulse gradually fell to one hundred and twenty that afternoon. Improvement was rapid and convalescence without noteworthy event. Patient left the hospital on the thirteenth day after the operation well.

Summary.—The greater actual frequency of ectopic pregnacy than the number of observed cases would lead us to believe—

The usual irrevelant and typical nature of the symptoms. The difficulties in the way of making a diagnosis and neccessity for a careful study of the cases, in which this condition might be suspected, both in this present and past aspects. The importance of studying the character of the uterine discharges. The association of this with pelvic pain and discomfort and the signs of pregnancy.

The advantage of prompt operation, removal of blood and other debris by dry sponging without irrigation, thorough hemostasis and the closure of wound without drainage.

The principles enunciated above have been followed in more than a dozen cases of ectopic gestation without a single death.

The Russianizing of the American Medical Profession—My Contentions Proven.

By G. Frank Lydston, M. D., Professor of Genito-Urinary Surgery in the Illinois State University, Medical Department, Chicago.

The entire profession is aware of the battle I have been waging against the political despotism which now controls the A. M. A. The independent journals and the independent medical societies are our only recourse in the battle for liberty and reform. In furtherance of the reform movement, I submitted a paper to the Mississippi Valley Medical Association. In this paper I endeavored to prove that something was rotten in the medical Denmark, and that American medicine is ruled by a selfish and despotic political ring which gives the rights of the membership at large not the slightest consideration. Fair play, I claimed, was a word unknown to the vocabulary of the medical Czar and his minions. My paper was put on the preliminary program. Later, the Program Committee objected to it on the ground that "The Russianizing of The Profession" probably was an attack on the sacrosanct powers of the A. M. A. (How did they ever guess it?) The committee demanded a copy or abstract of my paper. This I refused to submit to them, stating, however, that my paper was "as strenuous an attack as I knew how to make on principle, on the political ring which controlled the A. M. A."

The paper was put on the permanent program—No. 30, next to the last paper on the last day of the meeting. Its rightful place was No. 17, on the afternoon of the second day. Having put the paper on the program, no committee had a legal right to exclude it. This is obvious to any one who

knows the simplest principles of law. Noting the crooked work of the Program Committee, I at once telegraphed Dr. Arch Dixon, of Henderson, Ky., who had been assigned No. 17, and asked for his place on the program, which he kindly gave me. The Executive Committee then promptly convened and excluded my paper altogether. My friends immediately got together and asked me to read the paper independently. I consented. with the proviso that I should change the title to "Despotism in American Medicine." I then asked the Chairman of the Committee of Arrangements if there was any objection to my friends' plans and he replied that there was not. My friends engaged and paid for a room at the Southern Hotel, the Association headquarters, and the paper was announced. When the time set—3 p. m.—arrived, my friends were informed rhat they could not have the room, as all the rooms were under the control of the Committee of Arrangements. A room was finally engaged at the Planters' Hotel and the address delivered. I submit to the profession the following questions, viz:

1st. Am I right in contending that free speech and liberty of opinion is denied the rank and file of the A. M. A.?

2nd. Is the A. M. A., as at present conducted, a despotism?

3rd. Is the Mississippi Valley Association, of which I am one of the oldest members, a free and independent association, or a satellite of the A. M. A.?

4th. Is there anything in my contentions which I have not a right to advance as a member of the A. M. A. and a free born American citizen?

5th. Is the A. M. A. "American?"

6th. Is there anything in my contentions to which any fair-minded man could not listen, or which is not conducive to the best interests of everybody save the political machine which runs the A. M. A.?

ABSTRACT OF PAPER REJECTED BY THE M. V. A. OCT. 12TH, 1909, AT ST. LOUIS MEETING.

The average American doctor is either too busy or too indifferent to safeguard his own interests, hence he has ever been the dumping ground for the gold brick industry. The most colossal gold brick ever handed him was the scheme of reorganization of the A. M. A. in 1902. This was speciously fair and full of promise, on the surface, but served to conceal the designs of a cabal of self-seeking politicians whose chief ambition was power, place and political prestige for themselves.

The Constitution and By-Laws under which the A. M. A. is now operating, was written by two men—the third did not count—Drs. Simmons and McCormack. The provisions of this document gave multiple offices and despotic power to the chief factor in reorganization, who, strange to say, was formerly an advertising newspaper specialist and is a "regular" by virtue of a diploma obtained by "arrangement." The two men who wrote the Constitution and By-Laws hold the only high-salaried offices of the A. M. A. Their combined salaries amount to $17,310.05 per annum. One of them holds three offices, Editor, Secretary and General Manager, and has the power and temperament of a Czar. He was at one time Chairman of the Council of Pharmacy and Chemistry, thus holding four offices!

The Constitution and By-Laws of the A. M. A. was irregularly adopted, as shown by Dr. W. H. Sanders, (Medical Record, June 10th, July 1st and 17th, 1905.) Some of the State machines, following the example of the parent Association, threw legal restrictions to the winds and re-organized with total disregard to membership rights. All protest was smothered by exclusion from the Journal of the A. M. A., which is controlled by the Czar and his machine.

Power is always corruptive, and grows by what it feeds on, hence it was but natural that the machine which now controls the A. M. A. should have grown more and more despotic as time went on. Abuse of power was to have been expected and has occurred. Members—even whole societies—have been robbed of their rights. One man, Dr. H. B. Young, of Burlington Iowa, was declared ineligible to read a paper and illegally expelled from the A. M. A. in 1904, because he opposed the plans of the machine in Iowa. "Harmony" in the A. M. A., it seems, consists in submission to the will of the machine. "Unification" apparently means submission to one man power.

The Secretary General-Editor-Manager of the A. M. A. has abused his power. He has abrogated the rights of members and has persecuted those whose policies differed from those of his machine. He has tried to injure the private business and credit of members of the A. M. A. He has prostituted the Journal to his private animosities and to vulgar, every day politics. He has dealt partially with the friends of the machine and opposed representation of the rank and file. He has published offensive advertisements without rebuke. He has used his position for the political preferment of himself and satellites. As matters stand, the rank and file have no medium of protest or criticism. In all of his overt acts the Czar of the A. M. A. has had the support of the machine which he constructed

The A. M. A. has degenerated, under the present regime, into a huge money-making enterprise with the earmarks of a trust. The walking delegate of the A. M. A. has added the quality of trades unionism by his advice to the laity, not to employ physicians who are not members of the local branch of the A. M. A.

Quality, rather than numbers, should be the criterion of success in medical organizations. Better a clean, self respecting association of 5,000 members than one of 50,000 run on the principles of monopoly, politics and money-making. The reports of the business of the A. M. A. to the membership at large are absurd, and would not be tolerated by business men. We have a business of over $500,000 per year and an expense account of over $300,000, yet itemized accounts are never rendered. Worse than this is the fact that nobody but the treasurer is under bond. Possibly the present machine is "chaste as ice and pure as snow," but who can say who will follow the present officials? Those who venture to criticise the machine are ridiculed and hindered by the machine organs. It seems that the rank and file are not permitted to voice their sentiments. "The King can do no wrong." But the rank and file are waking up and things must change. The A. M. A. must reform its machine or a new and democratic association will be the answer to the questions which the rank and file are insistently asking. The control of the A. M. A. must revert to the members, to whom it rightfully belongs. It must become "American" in deed and principles as well as in name. It should return to the high ideals of our medical forefathers and cease striving for monopoly—monopoly which can only be unjust, oppressive and restrictive of our liberties, both as physicians and men.

My contentions for reform in the A. M. A. are as follows:

1st. The Constitution and By-Laws should be so amended that the reins of power will be taken from the hands of the Secretary.

2nd. The offices of Business Manager, Secretary and Editor should be separated.

3rd. The offices of Secretary and Editor should be filled by regularly educated medical men of clean professional records who are not cogs in the present machine. *There is always a possibility of a change of names but not of masters.*

4th. The personnel of the Board of Trustees should to a certain extent be changed. None of the present incumbents are mere tools and cogs in the present machine.

5th. The number of Trustees should be increased. The A. M. A. has outgrown the present Board. The Trustees should serve but one year.

6th. There should be at least three local Trustees, acting as a supervising business committee. At present there is but one, whose chief function apparently is to endorse the plans and actions of the Secretary General-Editor-Manager. Three men would be harder than one for the machine to handle, and would enhance the possibility of some hard headed, square-toed man having a finger in the pie.

7th. The President, Secretary, Trustees and other important officers should be elected by ballot of the members in attendance. The nominations should be made on the first day and the voting done at the place of registration on the succeeding days. This would put a premium on attendance. The stay-at-homes and those who were too lazy to vote would thereby have only themselves to thank if things went wrong.

8th. Provision should be made for a limited number of nominations for each office by petition.

9th. Bonds should be provided for all officers upon whose shoulders rests financial responsibility. At present only the Treasurer is under bond.

10th. Full itemized accounts of our business and financial affairs should be rendered the members yearly. The machine of the A. M. A. is power drunk and money mad, and sooner or later the notorious insurance scandals are likely to be duplicated by something nearer home. Human nature, be it essentially corrupt or primarily pure, requires a check system. The weak ones in the present regime may not always resist temptation; the strong ones will not live forever, and who can guarantee the strength or honesty of their successors? We have established a "Kingdom of the Dollar" that is all our own, and in that kingdom hungry-eyed Graft sooner or later will crowd himself onto the throne and sit beside Ambition. *Remember, that we have a business of about $500,000 per year, and an expense account of over $300,000.* Both items are rapidly increasing.

11th. A membership committee should be appointed to hold office only one year. At present the Secretary General is here absolute dictator.

12th. A certain amount of space in the columns of the Journal should be set apart for free criticism, queries and comments by the rank and file. Criticism of the policies and methods of the Association should be especially invited. There is at present an alleged department of query and comment. This department is a joke. If you do not think so, send in a kick against the machine and see what will happen to it. *Ask*

Dr. Young and the members of the Dubuque and Des Moines County Societies.

13th. The Editor should not be the Business Manager of the Journal, but a cultured, scholarly, scientific regular physician who devotes his time solely to editorial work. Under proper conditions and restrictions and a suitable salary, the present Editor would make a good business Manager, if he were not allowed to obtrude himself into the ethical, political, editorial or professional limelight. Exeunt Czar and enter employe. Speed the day!

14th. The initiative and referendum should be adopted as a protection for the suffrages of the members at large.

15th. Provision should be made for fairness in elections. They should be so arranged that no less than two candidates would be nominated for each office. This would in future prevent the choking off of nominations and the machine selection of officers.

16th. No member should be expelled without a fair trial and a full hearing, the proceedings being published *verbatim et literatim* in the columns of the Journal. This plan will obviate such damnable outrages as that perpetrated by the General Secretary-Editor-Manager and his machine upon Dr. Young.

17th. The Constitution should provide that no person holding an office of trust or legislation in the A. M. A. or in a State association shall be eligible to serve as a member of either the State or National Houses of Delegates. *I again assert that the A. M. A. is un-American in its present operations, and call attention to the disquieting political spectacle of tho Treasurer and Trustee of the A. M. A.—men holding offices of financial trust and responsibility—serving as delegates to the body which elects them and voting for themselves.* In the A. M. A. a man may serve as Treasurer, or Trustee, Delegate and Elector in both the State and National electoral bodies and vote for himself twice. Beginning with the Council of his local Society, he may vote for himself three times.

18th. To strike directly at the root of the political evils which have cast their malevolent spell over the A. M. A., delegates from subsidiary Societies should be elected by direct ballot of the attending members. The governing body of the A. M. A. cannot rise higher than its source. At present the fine work of the Association machine is begun in the State Societies. It is here that the first blow is struck at our professional liberties, The little cogs and wheels should receive an application of democratic grease if we are to hope for proper regulation of the major machine.

19th. If we are to continue to have a "House of Lords" let us carry out our British imitation to its logical ultimate:—by all means let us have a House of Commons If we wish to pretend an American virtue though we have it not, let us have a House of Representatives as well as a Senate. Give us also a Presidential veto.

Infant Mortality.*

By St. Geo. T. Grinnan, M. D., Richmond, Va.
Lecturer on Diseases of Children, Medical College of Virginia, Richmond, Va.

The object of this paper is to call attention to the large infant mortality which is so significant as to be a subject of discussion in newspaper articles and in the current magazines. Medical journals all over the world are discussing the question of lowering infant mortality. Various societies, both in this country and abroad, are discussing plans for the instruction of those having charge of infants. The campaign against infant mortality in Germany has aroused such general interest that on June 4, 1909, an institution for the repression of infant mortality was opened in Charlottenberg, Germany. The German empress is protectress of this institution. The object of this institution, which has raised $400,000, are as follows: 1. The practical and scientific investigation of the question pertaining to the nutrition and care of infants as well as the care of mothers. 2. The collection of data on infant mortality, and organizations for the care of infants in the German empire and in other civilized countries. 3. To make the results of scientific and practical investigations available to the public by its publications, and to offer information and counsel to officials and to public and private associations as well as private individuals.

Reduction in infant mortality has not been noted in anything like the ratio the reduction in mortality for other ages has progressed. During 1907, 351,046 children died during the first year of life in Germany and two-thirds of these died from disturbance of nutrition. Of every thousand born one hundred and eighty-five died during the first year of life in Germany. In England and Wales, the mortality in 1890 was one hundred and sixty per thousand born.

The report of the Special Committee on the Prevention of Blindness in the State of New York is as follows (in part): "In Chicago, in 1904, 86% of all births were reported by midwives. In New York City in 1905, 43,834, or 42% of the whole number of births, were attended by midwives.

*Read before the Richmond Academy of Medicine and Surgery, November 9, 1909.

f five hundred midwives, less than 10% ere capable."

These women determine the feeding, and e responsible for much unnecessary weang. No instruction as to infant feeding or rsing is given. No caution as to the dan-r of cow's milk in hot weather is given. Right here it must be said that removal om the breast is done constantly by medil men without adequate investigation. ie fact that immunity to disease is greatly hanced by nursing is not sufficiently recnized.

With the tremendous advance in our owledge of medicines, there should be a rked decrease in infant mortality. *The onthly Bulletin* of the Health Department Richmond, Virginia, shows that infant rtality under two years of age, due to sturbance of nutrition, increased 10 per nt. during the first six months of 1909 as mpared with the first six months of 1908. July, 1909, there were 229 deaths in chmond. Of these, 34, or 15 per cent., re due to diarrhea in infants under two ars of age. Twenty-three, or 10 per cent., re due to tuberculosis for all ages. Nine, 3.9 per cent., of the deaths were due to phoid fever.

n June, 1909, there were 213 deaths in city of Richmond, of which 39, or 18 cent., were due to diarrhea in infants der two years of age. Eighteen, or 8.4 cent., were due to tuberculosis for all s. There were no deaths from typhoid er.

t has been estimated that 150,000 deaths ult annually in the United States from erculosis, and that 300,000 infants per annually during the first year. In nce, the tragedy is well pictured in the nch chart, familiar to every child-spec-st, called the "Eiffel-Tower." Here, we e a contrast in morbidity between chil-n suckled and those fed upon artificial l. Among the former, the ratio of deaths ains comparatively constant until we ch July and August when it rises to a siderable, but not startling, degree, fall-shortly afterwards and remaining as at until the close of the year. With arti-al-fed infants, however, it is always sub- to leaps and bounds. When July is hed, the leap is frightful, reaching 255 1000 born.

reat credit is due Nathan Straus who nteen years ago began his campaign inst impure milk. Splendid results have n achieved, and milk reform is gradu- spreading over the entire country. Pure is only one factor. More important to supply a substitute for breast-milk, encourage breast-feeding and render it ible; to remove the conditions of under nourishment and employment which prevent women from nursing; and to educate mothers to realize not only the importance of maternal nursing, but also the value of sanitation, infant feeding, infant hygiene and the proper care of their infants and themselves.

Illegitimacy is a factor in high infant mortality. In Glasgow in 1873, the death rate of legitimate children was 154 per thousand against 293 per thousand for illegitimate children.

We have little idea of the large number of infants "farmed out" to die. Among the negroes, baby farms have done an extensive business here in Richmond. The death rate of negro children in Washington is seven times that of white children. The white people of the South have sacrificed a large number of their children by turning them over to the ignorant, but kind, negro mammy or nurse who cannot raise her own child.

It is important for us to determine what diseases occasion the largest mortality of the first year. Statistics furnished by Professor W. Pransnitz, of Gratz, are very instructive. He recorded the causes of death of 1,000 children in the first year, according to the German statistics, for 1900. For every 1,000 births, 225 deaths occurred in the first year. Of these, 84, or more than one-third, were caused by stomach and bowel trouble. Diphtheria, croup, whooping-cough, measles and scarlet fever together account for only one-twentieth of the entire mortality: tuberculosis, inflammation of the lungs and other inflammatory ailments of the respiratory organs for about one-tenth: congenital weakness and debility, 32, or 14 per cent.; other known diseases, 68, or 30 per cent.: unknown, 8, or 3 per cent.

Comparing the different races, we find the following table:

DEATH-RATE UNDER ONE YEAR PER ONE THOUSAND LIVING.

	1876-1880	1893-1902
England	145	152
France	163	158
Prussia	205	199
Italy	249	173
Switzerland	189	145
United States	166	165.4

A glance at this table shows that the English-speaking races have made scant progress with infants under one year.

I wish particularly to emphasize overcrowding as one of the causes of high infant mortality. The following table shows the density of population in England and Wales during 1851 to 1866, both for all ages and for children five years of age:

DENSITY PER SQUARE MILE

166 186 379 1718 4499 12359 65823

RATE FOR ALL AGES

16.0 18.1 21.9 24.8 28.0 32.9 38.6

RATE FOR FIVE YEARS

37.3 47.5 65.0 82.1 94.0 111.9 139.5

The mortality in the cities is about double that in the country districts, and the above table shows that city life is an important factor in high infant mortality. The number of rooms occupied by the family is a good guide to hygienic conditions, as shown by Dr. W. S. Stowell (*Medical Record*, May 23, 1909). Dr. Neuman, in Berlin, gathered statistics in regad to room space. He found that out of 2,701 infant deaths, 1,792 occurred in one room dwellings, 745 in two rooms, 122 in three rooms and 43 in large dwellings.

The mother who has to go out to work will make a poor nurse. There was a great falling off in infant mortality in England during the American Civil War from 1861 to 1865. During this time cotton was not shipped from America to England in usual quantities, and the women there who were forced to do a large portion of factory labor were forced to remain at home. As a result, factories in large numbers were closed. Although 24 per cent. of the population became objects of charity, the death rate was low. After the close of the war, the factories were re-opened, and the death rates rose to their usual height.

Meinert has gathered statistics to show that it is not solely the excessive temperature or the lack of cubic space per capita in the home that causes the high mortality. A temporary total cessation of spontaneous ventilation in the houses arising from their construction and occurring only under certain barometric conditions constitutes the decisive factor. The number of cases of infant diarrhea decreased at once with a strong wind and increased rapidly as soon as the wind fell again.

Dr. James Wood, of China, told me that he was able to reduce infant mortality 40 per cent. by removing a large number of infants to a higher elevation in the surrounding hills where the air was not so hot and there was more wind.

The influence of prosperity on the mortality of infants due to ailments of the stomach and bowels has been studied by Professor W. Pransnitz, of Gratz. He divided the deaths into four classes, (1) rich, (2) middle-class, (3) poor, (4) destitute; and the percentage of deaths from these diseases has been calculated for each class. By this means, it was shown that in Gratz, for example, in the last fifth of the past century not one child died in a rich family; while in the second class about 4 per cent., in the third, 36 per cent., and in the fourth, 60 per cent. fell victims.

The campaign against infant mortality must be along the lines adopted for tuberculosis. It should be a much discussed subject, and literature dealing with it must be sent to families in which births are reported. The midwife must be supplied with the proper literature and she should receive proper instructions herself. Certainly 50 per cent. of the deaths among infants is preventable, and it is within the power of medical men to save something like 100,000 lives in each year.

In 1908, the English parliament passed a law for the protection of infants and children. In England no child can be adopted without a permit. In 1909, a bill was introduced in Congress to form a Federal Childrens' Bureau to deal with the facts of birth rate, infant mortality, physical degeneration and other juvenile matters. This bureau bids fair to be of great value to the country.

Sir Thomas Browne must have had in mind infant mortality when he said, "For the world I count it not an Inn, but an Hospital, not a place to live in but to die in."

We who hold so tenaciously to life, and hold with Socrates, "life is worth living," should use our best efforts to protect the lives of helpless infants who have no say as to their fate.

The Surgical Treatment of Hepatic Ascites.*

By W. Lowndes Peple, M.D., Richmond, Va., Professor of Histology and Assistant to the Chair of Clinical Surgery, University College of Medicine.

I have selected the foregoing subject primarily to afford an opportunity to bring before the Academy a case which seems typically illustrative, and yet presents many puzzling features. Since several among us have had an opportunity of a more or less critical study of it from time to time, it seemed well to present it in its entirety up to the present date, with its clinical findings and the subsequent history (which have, fortunately, been enabled to follow) so that we may thresh it out here upon the floor, and thus clear up the obscurer points.

Hepatic ascites is regarded as a seepage of serum into the peritoneal cavity, due to resistance offered to the flow of the portal blood through the liver from deposits of fibrous tissue within the liver structure. Let it be borne in mind that the operative procedures to be reviewed are not intended to deal with cirrhosis of the liver, but are

*Read before the Richmond Academy of Medicine and Surgery, September 21, 1909.

designed for the relief of ascites, its most distressing result. Hence, we shall not attempt to set forth a classification of cirrhosis, which varies numerically with the number of authorities consulted, nor with the theories of etiology.

The operation is designed to offer mechanical relief by establishing a collateral venous anastomosis between the portal and systemic vessels around, instead of through, the liver, presupposing that the ascites is due to mechanical failure of the normal blood channels. When we chase back our memories and recall the broken derelicts whom we have tapped from time to time till death claimed them; when we remember that such men are actually or prematurely old; that the conditions producing cirrhosis have also crippled their kidneys, hearts and blood vessels; and that temporary recovery would only mean one more plunge into dissipation, the field seems far from promising, and we naturally ask the question, "Is it worth while?"

A closer study of the subject will answer this definitely in the affirmative, for it will be found that many men with years of usefulness before them, women with no alcoholic history at all, and children far oftener than one would suppose, are subject to cirrhosis of the liver.

The prognosis, in the light of statistics, is also far from encouraging. The mortality varies greatly with the groups of cases collected by different investigators. A fair summary, in the words of one writer, is that one-third die within a month, one-third are greatly benefited and one-third are slightly improved or unaffected. The immediate mortality, which was very high in the early cases, has been greatly reduced and will unquestionably be still further improved by a better selection of cases for operation and a wiser selection of operative procedures to suit the individual case.

Operations.—The operation as originally described by Talma and popularized by Morrison and Drummond, consisted in a linear incision near the median line beginning a little below the ensiform cartilage. Through this the abdomen was mopped dry of fluid and the anterior surface of the liver and spleen scarified with gauze by rubbing. The omentum was then stitched to the parietal peritoneum of the anterior abdominal wall and the wound closed. This procedure has been variously modified by other operators. Schiassi fixed the omentum between the peritoneum and overlying muscles, and sutures the spleen to the parietal peritoneum. Von Eiselberg fixes the gall-bladder to the anterior abdominal wall. Ito and Omi leave in gauze drains or plugs, causing the intestines to adhere to the parietes. By some others, the omentum is implanted within the rectus sheath.

Of the various modifications, the one practiced by Narath, from its rational simplicity, seems deserving of especial attention. He makes a small incision, pulls out the omentum and stitches it to the areola tissue just beneath the skin. He then closes the wound around the artificial epiplocele tight enough to avoid hernia and not too tight for constriction. He claims that the collateral circulation is best established through the superficial veins, and states that a very evident enlargement of these veins can be noted within five days. Its advantages are that it can be quickly done under cocaine anesthesia, with little or no shock, either one or both sides of the median line at one or at two sittings. Its disadvantage is the possibility of hernia through the imperfectly closed fascia.

The after-treatment of these cases is comparatively simple. The pelvic drain used by Morrison has been abandoned by most operators. The abdomen is bandaged tightly from chest to hips. The diet is dry with as little fluid as possible. The bowels are kept open with saline laxatives. Usually, from one to three subsequent tappings are needed before the collateral circulation is properly established.

Case.—E. S., white, aged 18, works in a tobacco factory as packer of boxes. Her father died of heart disease and paralysis; mother living and healthy. She is the youngest of three children. The first died suddenly at the age of five months; the second is 24 years of age, normal in every way, is married and has three healthy children. She was a large, healthy baby, but had a rather full abdomen. She developed normally up to the age of three or four when growth and development seemed retarded. She went through the diseases of infancy, but was never seriously ill. She attended school up to the age of 12, and was bright, quick and capable. She had one scanty menstrual period at 15, but has not menstruated since, though she has had backache and pelvic pains at times.

In 1906, three years ago, she stopped work on account of feeling tired and badly, and went to visit relatives in the country. She soon noticed that her waist was enlarging and that she became tired and even exhausted from slight exertion; also that her lips and fingers were blue. There was some swelling of the feet and ankles at this time. She was treated by Dr. W. H. Parker and was soon able to return to work.

In May, 1907, she was seen by Dr. Harry Baker who says that she had at this time a marked dyspnea upon the least exertion. Her lips were purple and her face and body

badly mottled. She was unable to climb stairs or to lie down at night. Her liver was hard and extended down to the umbilicus. There was no ascites, no swelling of the feet and legs nor any detectable lesion of the heart.

Under treatment, the dyspnea and cyanosis disappeared. She could lie down at night and, for a short time, was enabled to return to her work in the factory. The improvement did not last long, however, for her symptoms returned and fluid began to accumulate in her abdomen.

I saw her some three or four months later, in the spring of 1908. She was enormously distended. Her face, hands, arms and body were deeply cyanosed with a peculiar blotched or mottled appearance. She suffered greatly with dyspnea, and had been unable to lie down for some time. There was no swelling of the feet nor edema anywhere, nor could I detect any heart murmur.

First, I tapped her, removing four or five gallons of fluid. Second. In the fall, Dr. M. E. Nuckols tapped her, getting about three gallons. Third. In December, I removed four gallons. Fourth. In February, 1909, just prior to operating, I removed two gallons.

Examination.—A small, poorly developed girl of quick mentality and bright and cheerful mien. Though actually 18, she does not look to be over 13 or 14. Her figure is slight and singularly girlish. She is 4 feet, 10¾ inches in height and weighs 90 pounds. The breasts and vulva are small, undeveloped and child-like. There is absence of pubic and axillary hair. The two lobes of the thyroid are somewhat enlarged and rather harder than normal. There is no exophthalmos. Temperature, 97 1-5° to 98 3-5°; pulse, 60 to 72; respirations, 18 to 20. Urine normal, except a trace of albumen. Blood, red cells 6,000,000; white, 4,400; hemoglobin, 85; color index, 70. Differential count shows nothing abnormal.

The heart, examined by Dr. W. S. Gordon before tapping: Right heart enlarged, left but slightly; no murmur can be detected; examined by Dr. J. G. Nelson after tapping, "shows general hypertrophy, especially the right ventricle. The valves are in excellent condition. The muscle is normal except for hypertrophy. The heart sounds are slightly accentuated, especially the pulmonary second sound. The condition of the heart may be accounted for by prolonged increase of resistance in the general circulation due to accumulation of fluid."

The lungs: "Slight general hyper-resonance of breath sounds due to lack of development of the bony structures and fatty and muscular tissues."

The abdomen, after tapping: The liver is seen to extend down almost to the umbilicus. The left lobe is plainly palpable well below the costal margin. The liver feels hard and smooth. Its lower border is sharp and clearly defined. The spleen cannot be felt. Measurements: Around the iliac crest, 28½ inches; around the umbilicus, 27½ inches; around the liver, one inch below the xyphoid, 29½ inches. The veins of the abdominal wall are not much enlarged.

Negative History.—She has never had nausea, spitting or vomiting of blood, hemorrhoids or jaundice. There is no history of tuberculosis or malaria; no history or signs of specific trouble. She has never suffered much pain except after tapping, when it is acute and of a cramping character and in the pit of the stomach. Her bowels have moved fairly regularly, and the kidneys are normally active.

Diagnosis.—Hypertrophic cirrhosis of the liver.

Operation (two days after tapping): Under chloroform anesthesia, a right rectus incision was made a half-inch to the right of the median line from the costal margin to the umbilicus. A half-gallon of fluid was evacuated and the abdomen mopped as dry as possible. Palpation of the viscera revealed an infantile uterus with diminutive ovaries; normal kidneys and spleen enlarged probably one-third. The intestines were normal in color, their vessels not engorged; omentum very small, very thin and scanty of fat; the vessels did not seem to be enlarged. There are no adhesions, no tubercles nor evidence of peritonitis.

The liver is of a dark, purplish color, not much harder than normal to the touch. There are no nodules upon it nor hard areas within its substance. The margin presents a peculiar fringy appearance like a miniature cockscomb. A small wedge was excised from the margin, which I present mounted for microscopic inspection. The anterior surface of the liver was now rubbed lightly with gauze, which readily provoked a free oozing of blood. On account of the very small size of the omentum, it was decided to make the liver anastomosis as broad as possible. Turning back the abdominal wall, a matter easy of accomplishment in its relaxed condition, the parietal peritoneum was stitched to the oozing surface of the liver from the upper angle of the wound to the lower margin of the liver 1½ inches from the incision on either side. The peritoneum was next closed from above downward, the stitches including liver tissue, thus making an attachment by three rows

of sutures 1½ inches apart from the costal margin above to the free border below. Before closing the peritoneum below, the omentum was turned up and fastened to the peritoneum below the margin of the liver. The wound was closed with tier sutures.

Convalescence was uneventful. She was given a dry diet and the bowels kept active. On the 10th day she was given potassium iodide, beginning with 5 grains and going up to 15 grains, three times a day. She has continued this up to the present time.

On March 17th, measurements showed one-half inch gain at the umbilicus and little or no fluid present. She left the hospital on March 21st, and has reported at my office every two or three weeks since that time. She goes wherever she wishes, eats heartily and seems perfectly well and happy. She is still troubled occasionally with dyspnea on exertion, and is, at times, cyanosed. She chills very quickly, showing poor circulation. The liver is somewhat smaller, measuring two inches less below the xyphoid. The abdomen is one inch smaller around the umbilicus.

On August 25th I gave her thyroid extract, three grains three times a day. On September 20th she came to me with several quarts of ascitic fluid and lips cyanosed. I put her on a dry diet, stopped the thyroid extract, gave her a tablespoonful of Epsom salts daily, and in three days the ascitic fluid disappeared again.

Pathologic report on excised specimen, by Dr. E. Guy Hopkins. Capsule thickened and congested. Perilobular connective tissue increased in amount and contains numerous round cells and leucocytes. Bile ducts apparently increased in number. The interior of the lobules shows a network of new connective tissue following the cords to the central vein. The blood vessels are congested, more especially the branches of the portal vein. The liver cells are normal in size, shape and structure.

Diagnosis.—Hypertrophic cirrhosis.

From a rather careful review of the literature upon this subject, and from experience limited to this one case, the following practical points are deduced:

1. That the operation should be done early.

2. That cases of enlarged livers give a more favorable prognosis than those in which the organ is contracted.

3. That a preliminary tapping, 12 to 14 hours before the operation, will make the work easier and less sloppy, and avoid the shock which sometimes follows the rapid evacuation of large quantities of fluid.

4. That if the operation is attempted at all in the later stages of the disease, some simple plan, such as described by Narath, should be done with local anesthesia.

5. That abdominal drainage is unnecessary, but mopping the cavity thoroughly dry is very important.

6. That the patient be cautioned against the wearing of tight bands or belts about the waist after leaving the hospital, lest the superficial anastomosis be interfered with, a point to be especially emphasized when the patient is a woman.

As to the case under discussion, I am not prepared to say whether the cirrhosis was due to a primary heart lesion or not. I do not believe it was specific. The iodide was given empirically. I am not prepared to establish a relation between the cirrhosis and her peculiar, undeveloped physical condition or, in the event of such a relation existing, to state which is the cause and which the result. It is upon this point, especially, that I desire the help of the Academy.

I do not regard this patient as cured, but remembering that seven months of almost complete relief have followed an operation which was preceded by nearly three years of invalidism growing progressively worse, latterly threatening her life and requiring frequent tapping to make life endurable, I do claim that this operation is entirely justified even if nothing more is gained.

1000 West Grace Street.

Repair of Recent Lacerations of the Perineum.*

By Charles R. Robins, M. D., Richmond, Va., Professsor of Cynecology, Medical College of Virginia; Cynecologist, Memorial Hospital; Surgeon, City Hospital.

After rather an extensive opportunity for observation, I am convinced that the anatomy, function and repair of the female perineum form a somewhat hazy conception in the minds of many of the medical profession. I shall not attempt at this time to discuss in detail the various aspects of this subject, but shall only offer a technic which at once simplifies repair and, in my own hands, has secured uniformly good results. Such a discussion is usually regarded as elementary, and I would apologize for introducing it were it not for the fact that many of my own early cases yielded very unsatisfactory results; and the apologetic confessions of other physicians have led me to believe that although the necessary operations are regarded as quite simple, the results obtained would seem to indicate that such was not the case. It is certainly true that if proper apposition is secured in primary cases, a more satisfactory result is ob-

*Read before the Richmond Academy of Medicine and Surgery, November 9, 1909.

tained than can ever be secured by a secondary operation, no matter how skilfully it may be performed. This of itself is a sufficient reason for endeavoring to establish a technic that will make secondary operation unnecessary.

For purpose of classification, I know of no better division than that given by Penrose in his text-book first published some years ago. It comes more nearly to describing the anatomical injury than any I have seen; and so far as my experience goes, whatever may be the direction or extent of the tears of the mucous membrane or skin, all lacerations fall into one of these divisions.

This classification is as follows: Slight median. Median involving the sphincter ani. Laceration in one or both sulci. Subcutaneous laceration.

Median lacerations, even when very extensive, do not, as a rule, in any way interfere with the supporting power of the perineum, or, rather, its function of closing the vaginal outlet. The slight median practically causes no disability; and the median involving the sphincter ani causes the patient to lose control over the bowel but does not induce prolapse.

On the other hand, lacerations in the sulci seldom if ever tear into the bowel, but do cause prolapse, as they tear across the supporting muscles and more or less permanently disable them. Subcutaneous lacerations belong in this class.

Bearing these facts in mind, the object of the operation is to repair the essential injury. All lacerations should be repaired, even the slight median. An immediate repair, however, covers the period of twenty-four or even forty-eight hours, and it is often advisable to defer operation until a subsequent visit within this period, unless everything is at hand to perform the operation properly, or to secure necessary assistance. Nothing is gained by operating under unfavorable conditions and inviting failure. The first requisite in repair is proper exposure of the parts and indentification of the exact nature and extent of the tear. For this purpose sufficient light is an absolute essential. The contusion and discoloration of the tissues are often so great that it is only after a most thorough ocular examination that the physician can make out which is mucous membrane and which is torn connective and muscular tissue.

The hips of the patient should be brought well over the edge of the bed or table, and the feet properly supported. Then, under a good, strong light the vulva should be separated, the anterior wall of the vagina retracted upward with two fingers or a suitable instrument, and the floor of the vagina inspected while the blood is sponged away. The mucous membrane is often pelled off quite extensively, and it requires considerable care to make out the exact limits and direction of the injury. If the tear is a median one, it will extend up the mid line for a variable distance. If it is in one or both sulci, it will be seen to extend upward in an oblique direction, diverging like the letter V if both are involved.

In either case, the first step is to make out accurately the apex of the tear or tears, and from the apex the suturing is commenced. If there is only one line, this is closed; if there are two, a separate line of suture is used in each. The suture is a continuous one and should be absorbable. I am in the habit of using iodized catgut. If two sutures are used, they are tied together when the point of divergence of the tears is reached. The object of this suturing is to restore the vaginal tube, and in doing this two important results are achieved: First, the absolute restoration to their proper relation of the injured structures and, second, the accurate approximation of the walls of the vagina.

As regards the first, I am well convinced that even in the most expert hands it is often a matter of impossibility to identify and approximate the divided structures as they lie retracted and distorted in a recently lacerated vagina. But the picture is immediately reversed after the vaginal tube has been restored, when the injured structures will be observed to fall together in an orderly and quite intelligible manner. These vaginal sutures are absorbable because their only object is accurate approximation. The whole line of suture is supported by non-absorbable sutures (which will be described), and by the time the catgut has been absorbed, sufficient union will have been obtained to maintain the accurate approximation. If chronic catgut is used, it remains in the tissues so long that it invites suppuration.

As regards the approximation of the vaginal wall, it prevents pocketing and leakage of the lochial discharge into the wound. In using interrupted sutures, it is often difficult or impossible to prevent this, and I believe is a frequent cause of failure.

Having restored the vaginal tube accurately to the point of the hymen, we next introduce non-absorbable sutures, preferably of silkworm gut, which remain in until union is firmly established, usually ten days, when they are removed. By observing the injured structures, they can be introduced in such a way as to approximate them; but as a general rule, the following method should be followed. The first suture

is commenced about one-quarter inch from the margin of the wound and on a level with the posterior commissure. It passes through the skin and underlying tissues, making a sweep outward, and is carried through the levator ani. It is then carried in the direction of the anus, but great care must be exercised not to pierce the bowel, and in any case of doubt, one finger of the gloved hand should be introduced into the bowel as a guide. The suture is then brought out on the other side in the same manner. Two, or at most, three such sutures effect proper appositiou.

We have now, only to consider tears involving the sphincter ani. For the purpose of approximating this muscle, two silkworm-gut sutures are used which commence on the skin, pierce the muscle and skirt under the tear and come out on the other side in the same manner. The most important point, however, is to protect the suture line from infection from the bowel. This may be accomplished in several ways. The easiest is to pass a third suture, skirting along just under the mucous membrane of the bowel. When this is tied, it draws down the mucous membrane like a purse string and acts very nicely. The mucous membrane may also be dissected up sufficiently to draw it down, when it is sutured in this position transversely at the margin of the anus. In cases, where the tear extends up so high as to involve the septum, it will be necessary to suture the mucous membrane with catgut in situ, and, as a rule, it heals very rapidly without infection.

The after care of the bowels is of greatest importance. If the suture line is protected by mucous membrane as indicated, there is no reason why the bowels should not be moved early. Consequently, I endeavor to secure a fluid stool on the third day by the administration of a saline. I believe that prolonged constipation is inadvisable. Where a large, hard, fecel mass is formed, I do not believe it can be broken up by any form of medication; and its passage is very apt to cause very serious injury to the recently repaired muscle.

The after care of the perineal wound is simple. The patient voids, and after each voiding and bowel movement, the external parts are bathed, and dusted with boricacid powder. The stitches are removed on the tenth day.

8 west Grace Street.

Delirium Tremens—A New Plan of Treatment.—Geo. E. Pettey, M. D., Memphis, Tenn., at a recent meeting of the Southern Medical Association, said, This condition is defined as a functional disturbance coming on during the course of chronic alcoholism and is due to accumulation of toxic poison in the blood. These poisons are of both drug and auto-origin. The potency of these poisons is progressively increased by a loss of the fluid element of the blood by excessive perspiration and by deficient absorption of water from the stomach. In fully developed cases the volume of circulating medium is pathologically decreased. The brain is hyperemic in a large majority of cases and enemic in a small per cent. These conditions of the brain is an essential factor in the immediate causation of the delirium. In order to intelligently apply remedies to the control of delirium it is necessarily to differentiate the hyperemic from the enemic cases.

The indications in treatment are, support of vital fuctions, control or arrest of delirium and removal of poison from the blood.

For the purpose of restoring the volume of blood, supporting action of heart and promoting elimination by kidneys normal salt solution is given by rectum, by hypodermoclycis, and in severe cases intravenously. This is pushed until the entire arterial and venous system are filled with fluids to their utmost capacity, then, this fluid is drained off by the bowel with large and repeated doses of epsom salts, the idea being to practically wash the poison out of the blood by forcing fluids into the system and draining the same off by the bowel and kidneys. Calomel is given in full doses at the beginning of the treatment. Sparteine in doses of two grains is given every two to six hours for the purpose of giving additional support to the heart and promoting action of kidneys. This remedy is classed as our most reliable heart tonic and an efficient non-irritating diuretic.

The free introduction of normal salt solution gives most reliable support to the heart, dilutes and renders less toxic the poison in the blood, improves the condition of the patient in every respect and does much to allay the delirium, but for the special purpose of combating the delirium, in the hyperemic cases, Golseminine is given in doses of 1-25 grain every one to two hours until its full physiological effect is developed, unless the delirium and unrest is sooner allayed. This drug is a reliable cerebral sedative and motor depressant and is not incompatible with drug indicated in the hyperemic type of cases but should not be given in the anemic cases. Strychnia, a drug, the effects of which are directly opposite those of Gelseminine, is given for the control of the delirium in the anemic cases. Strychnia is positively contradicted in the hyperemic cases, but in the enemic cases, by increasing the blood supply to the brain

it quiets delirium. Alcohol is reduced to a moderate quantity but not entirely withdrawn during the delirium. Physical restraint is condemned. Opiates and other narcotic and sleep producing drugs are condemned. They are not only dangerous per see, but interfere fatally with the action of curative remedies.

This plan of treatment has been employed, when indicated, in 450 consecutive cases of chronic alcoholism. Some of these were delirious when admitted, others developed delirium after admission, but in no case did the delirium resist the treatment longer than 24 hours, and in most cases this symptom was overcome in from six to twelve hours from the beginning of treatment. No death from delirium tremens occured in the entire series of 450 cases.

A Plea For An Early Investigation of Pellagra.

I have had in the past three months two typical cases of Pellagra and, doubtless, in my past experience numerous others which were unrecognized. The fact I believe it is even now more prevalent than imagined. One of my two cases died insane, the other is rapidly advancing towards a fatal termination and without help at the present time from medical science. And I feel now that the physicians should join together in the effort to ascertain, if possible, the cause treatment of this disease. In my opinion, there is no disease that demands the attention of the Southern physician more than does Pellagra. In almost every county in this State, there is doubtless to be found numerous cases, and when we come in contact with them one feels like throwing up one's hands in helpless despair, for where is the cause? What is the remedy?

These are the questions that must be settled at an early period. As to fermented maize being the causative factor, I feel sure it is an error, and time and investigation will explode that theory. But whatever is the cause, the physician must devise some method to ascertain it. I believe the quickest and surest means to this end is the employment of capable pathologists for as long a time as will be necessary to accomplish it. Funds, of course, will be necessary and possibly the only way in which to raise the amount is for the different County Meical Societies of the different Southern States to contribute their part of the money necessary to employ this expert. This question is of vital importance to all of us just now and steps, I feel sure, should be taken at once to check this very fatal malady, and if the proper medical authorities would appoint a committee to raise from the different County Societies, or through whatever means that might seem best, the sufficient amount of money to pay a pathologist to investigate this disease, I know of few other ways to benefit society more. The time is now, before other victims succomb and the disease becomes more prevalent.

Gaston B. Justice, M. D.

There is a large class of post-nasal, pharyngeal, and throat affections due just now, and we do not know of any appliances quite as well adapted for treating cases of this description as the Nebulizers and Compressed Air Apparatus put out by the Globe Manufacturing Co., of the famed "Health Town" of Battle Creek, Mich. Medicated vapor applied "on the spot" is the key-note of the Globe treatments,—even to applying the vapor to the middle ear when necessary,—under proper pressure, and with vibratory impulses designed to manipulate the mucous membrane of the remotest parts of the air tract. With convenient air supply—apparatus for which this Company also supplies—this method is held by a large and growing number of physicians to be very satisfactory,—in fact, unapproached by any other non-surgical method. Their catalogs and formularies supplied on request,

The abdominal supporters on the market can scarcely be numbered. Some are good some are bad, and some are indifferent. No supporter yet offered to the profession has met with such universal favor as "The Storm", advertised on another page. There is good reason for this. It was designed by a woman who is a physician, Dr. Katherine K. Storm, of Philadelphia. This binder took the prize offered by the Woman's Hospital of that city, and it is endorsed by very many eminent physicians. It is useful after abdominal operations, in cases of displaced kidneys, gastroptosis, pendulous abdomen, etc. We have tried it in practice and can commend it highly.

S. L. JEPSON. M. D.

In W. Va, Medical Journal.

The Southern Surgical and Gynecological Association will hold its next annual meeting at Hot Springs, Va. Tuesday, Wednesday and Thursday, Decemebe 14, 15 16, 1909. under the presidency of Stuart McGuire, of Richmond. Those desiring to contribute papers should address the Secretary, William D. Haggard, Nashville, Tenn. Lewis C, Bosher, of Richmond, is the Chairman of the Committee of Arrangements.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR
CHARLOTTE, N. C.

"THE RUSSIANIZING OF THE AMERICAN MEDICAL PROFESSION."—A FEW PLAIN WORDS.

Within the pages of this issue of the Journal will be found an article bearing the above striking title from the facile pen of the distinguished Professor of Genito-Urinary Surgery in the University of Illinois which calls to mind thoughts about which few plain words may be of more than passing professional interest.

While probably not a few of our readers will not fail of appreciating in full the too manifest spirit of personal animus and extremism of correction methods advised, (both of which seem so constantly apparent in Dr. Lydston's contribution), and while many of what are his really strong points are overdrawn, and in some instances both facts and circumstances are apparently made to conform to his theories, yet there remains a vast deal of truth in his statements relative to the present Secretary-Editor of the American Medical Association and his methods and policies of administration of the affairs of that great national medical association and its powerful weekly journal.

As regards criticism of the monies paid to the Editor-in-Chief of the Journal A. M. A. and the Field Organizer of the Association, I believe that all fairminded physicians will agree that the ability requisite for the manifold and exacting duties and responsibilities incident to these most important positions are worthy of being paid every dollar of the amounts accredited to their salaries in the financial statements given out from year to year by the association officials. Likewise is manifest the injustice of the petty criticisms of the lack of fully itemized detail in the reports made through the columns of the Journal A. M. A. to the membership of the Association and the profession of the many expenditures incurred in the management of the various departments of the Journal; its funds paid for the thousands of different purposes necessarily incident to the business of a big corporation with receipts and expenditures annually exceeding three hundred thousand dollars. It is very apparent to any man of even limited business experience that a committe of the members in attendance at one of the annual meetings of the American Medical Association to go over and check up in detail the thousands of items of receipt and expenditure properly incurred in the business management of the association and its journal, would be an utter physical impossibility.

Hence, the plan pursured by the Secretary of the A. M. A. in having an audit company, as is the established custom of large business corporations, make at stated periods a systematic inspection of their books and accounts, and then submit the results of the said audit company, to the trustees or the business body of the Association, as is done at regular intervals, is the proper and legitimate way of attending to this portion of the extensive business affairs of so large a body. Furthermore the adoption of the doctor's suggested plan to allow trustees to hold office only one year and to make the body much larger than at present would only promote greater inefficiency in an official way, as such trustees would barely have time to fully acquaint themselves with the conditions of the business ere their term end approached, and the very evils he complains of would be intensified. Therefore this portion of the article may be passed as to say the least of it, chimerical and visionary.

But there are things in the article which should entitle and receive the careful attention of the leaders of thought and sentiment and the men of large influence in shaping the destinies of the organized American medical profession.

That in the natural evolution of the affairs of the organized medical profession in recent years have developed duties and arisen opportunities to serve the profession in divers ways not thought of, or contemplated in the earlier days of the A. M. A., I fully believe, and the profession should commend the activity of the Secretary-Editor in extending the influence of the Journal of the A. M. A. and enlarging the scope of its legitimate operations along the lines calculated to benefit the doctors of this country.

Some things in the management of the association and its journal demand the attention of the Trustees and the House of Delegates of the A. M. A , and their proper and careful consideration should not be longer delayed. For instance the having as Secretary of the national medical organization, and as editor of its official organ, of an ex-homeopathic practitioner, and one who advertised in the daily press of his home city for patients, is revolting to all highminded and honorable physicians who have due and proper regard for the honored traditions of the regular medical profession; and his being continued from year to year as leader and expounder of the best professional thought is an insult to the medical profession of the United States of America.

The present editor of the A. M. A. Journal, and the present Secretary of the A. M. A, should never have been placed in so responsible and honorable position, and those of our leaders responsible for his continuance in these positions are without doubt derelict in the performance of their manifest duty in not promptly replacing him with a competent Secretary-Editor who has lived correctly "from his youth up", in the educational and the ethical traditions of our profession!

Dr. Geo. H. Simmons should be retired as Secretary-Editor of the American Medical Association and the rank and file of our profession should insist upon his retirement by the business body of the Association, and should continue unceasingly such insistence until the demand of an outraged profession is heard, and a proper herald of correct ethical professional principles and practice placed in that important and responsible position.

To assume, as the trustees have, and the House of Delegates are equally responsible in that its membership have tacitly acquiesced, year after year, with this knowledge before them of Dr. Simmons past history, that our great national medical organization should properly have an ex-homeopathist for its educational leader is an absurdity, and the continuance of Dr. Simmons in that exalted position is a perpetual affront to the doctors of this great nation which should not longer be tolerated.

That the Journal A. M. A. is accomplishing a great work is undeniably true, but it is a fact that no one dare call in question, that the same good work can better be performed by one educationally, ethically, and traditionally, more in harmony with the ideals of the best in American Medicine.

The A. M. A. Journal is right in many of its positions, and yet vitally wrong in some of the most important policies. That the organization of the American medical profession should appropriately own and conduct for the benefit of its membership and the exacting of the science and the art of medicine, a great national medical weekly, is perfectly right and proper and to be expected and encouraged; but that the studied chosen policy, relentlessly pursued, of that journal to crush out of existence all other medical journals unless owned and conducted by the component societies of the association, is radically wrong in theory and wholly inconsistent with scientific ideals.

Gentlemen who have thoughtfully considered this subject in its varying phases and details, believe there exist appropriate fields for both organization owned and operated, and privately owned and conducted medical periodicals in this big country of ours, and can but cherish contempt for an editorial policy or an editor, assuming that nothing shall be entitled to existence in the domain of periodic medical literature save and except such journals as are solely conducted by medical societies. If such an absurd theory should ever obtain full recognition with the profession, could it not with equal argumentative facility and consistency be applied to the issuing of textbooks of medicine as well? Then would ensue the interesting spectacle of a medical society or its trustees or governing body undertaking to say who should or should not essay the tedious and oftimes unproductive financially task of writing and publishing a textbook of medicine!!

Or if the policy of organization control of the mental tools (the journals, magazines, books) of our profession be accepted, then a single short step farther and association of the remedies (*see foot-note) the individual physicians may use in his practice, the kind of clothes he may wear, &c., &c., *ad infinitum, ad nauseam!!!!* Can any one believe such a spirit of proscription would be tolerated, much less systematically cultivated and propogated by a sane profession once aroused to the ultimate destination of such a policy of its leading journal in free American States???

It is highly probable that a majority of the gentlemen responsible for the continuance of Dr. Simmons' continuance in official position and who have followed his successful leadership, engrossed with the multitudinous affairs of busy professional life, have not fully considered whither such leadership trended, or critically viewed this most vital matter from all sides. The Association Journal is an important factor in advancing the interests of the medical profession and is doing much good work; but this feature of its editorial and business policy as dictated by Dr. Simmons is unworthy of the best traditions of the profession, untrue to the principles of our science and the proper conception of our art which in the dissemin-

*A trite and intensely practical illustration of how little dictation American physicians will submit to in the vital matter of what they shall prescribe, and when was seen a few weeks since when the Guilford County (N. C.) Medical Society unanimously commanded the druggists of that county, filling the prescriptions of the members of the Society, to not publicly exhibit the said prescriptions of its members, on call of the local authorities, unless such exhibition was specifically authorized by the physician writing the special proscription.

ation of information or demonstration of scientific truth knows no metes or bounds as regards whether the printed sheet is owned by a society, a corporation or private individuals, provided its conduct merits professional respect; utterly beneath the great organization of physicians in whose name such policy is pursued, and last but by no means least, it is petty and unbusiness like as well as sadly out of adjustment with the spirit of progressiveness which characterizes alike the leaders of our profession and the age in which we live.

A great national medical journal as the official organ of the great national organization of the medical profession, is a necessity and has its proper field of operations; equally true it is is, that great medical journals with ownership and conduct independent of the financial aid and suppo,t of medical societies, have their legitimate field of action. Such independently owned and conducted journals are in existence in the various medical centres of the country and there is every evidence that they are giving equal satisfaction to their owners and their patrons as well, and that they will continue to be published.

Again in some few of the states where there are large society memberships counting by the thousands, it is perfectly practicable to successfully operate local medical journals of lesser scope than our great national weekly, as we see being now done with some degree of success in some four or five of the states. However, as a matter of practical business economy, such an undertaking, especially when proposed by those in official position in the national medical association, to be forced on every component society, large or small, without intelligent regard as to proper business considerations, is chimerical, and prudent business minded physicians there are who do not hesitate to predict that in five years there will be fewer medical society owned journals being published than are issued at present.

The policy of the Journal A. M. A. needs broadening. It may very properly enlarge, and should in fact, amplify all the varied opportunities afforded it for advancement of the numerous interests of the medical profession; not only in being the medium of transmission of the many valuable contributions to the current literature, and the general news of professional life as is now done, but it may even with perfect propriety farther develop the fields of effort lately invaded in undertaking through intelligently conceived committees to prosecute studies and investigations of a considerable number of the various problems ever facing the devotees of an only partially constructed science such as we have, reporting of course from time to time the results of their labors to an interested and appreciative membership. It may, and should do all of this, and more too as occasion evolves opportunity, (and I take a professional pride in noting that it is doing this, for I am proud of our great national official organ in many respects!), but when its editor deliberately fosters a policy which stiffles all periodic publications of medical kind, then we may naturally look for the appearance in the columns of a free and independent press of such fiery and impassioned attacks as Dr. Lydston makes in the article referred to above.

No, our great national medical journal should foster every influence for professional uplift, extending everywhere the helping hand, instead of cultivating a narrow provincial spirit which says to the profession and to the world, it is wrong for any man or men, saving a society, to own and conduct a medical journal—a contracted trades-union spirit which it pains an intelligent liberal minded man to think should ever be cherished by any enlightened member of our profession, which, of all professions or avocations of men, stands most firmly for individual liberty of thought and freedom of action in all things.

And we shall see the day in the not far distant future when those in control of the A. M. A., will, in response to a constantly growing demand, sweep from the exercise of autocratic and despotic power the mentally contracted and spiritually deformed Simmons and his suppliant sycophants and replace them with clearer minds which will guide our great national medical association and its journal along broader and more sympathetic lines of thought to greater opportunities and influence in benefitting the profession and the people. W.

ABIOTROPHY.

Changes of greater or less definiteness are implied by the term senile atrophy. Somewhat closely allied is a condition, recently brought into prominence by Gowers, which has been termed *abiotrophy*. Adami says that this is the condition of premature death of the tissues or portions of tissues, not as the result of any immediate irritant. Possibly this should be regarded merely as a conception and explanation of cell decay, inasmuch as it appears to explain in a manner more satisfactory than any other the development of certain otherwise obscure conditions. There is a series of morbid disturbances of the nervous system in which certain cells and systems of cells and the associated tracts present degeneration, and, eventually, complete disorganization, the

rest of the nervous system, apparently, showing no change. The development of these conditions is progressive. It is impossible to find any one factor or set of factors to explain them unless it be supposed that these cells have a shorter life than have the other neurons, that they exhibit a premature senility leading to precocious death. Such would seem to be a most satisfactory explanation of conditions like Thomsen's disease and other familiar paraplegias. In these diseases, for a time, the mental and nervous conditions develop in a normal manner. However, in a few years one particular set of muscles undergoes atrophy with corresponding paralysis, and the motor centres governing these muscles show localized atrophy of their cells. Somewhat similar to these hereditary conditions, are the nervous disorders which may follow long years after an attack of syphilis, notably tobes or locomotor ataxia. One method of regarding these conditions is to imagine that syphilis is a disease that is never wholly cured, that, once in the system, the germs continue to grow and to produce their toxins, and that these toxins have, as it were, a cumulative effect until, at last, owing to their continued irritation, they bring about the death of certain groups of nerve cells which are more susceptible to their influence than are others. The difficulty in accepting this view is that, in such cases, we have no other sign of the continued existence of the germs of syphilis. We do not find indications of gummata or other syphilomata. The individual is incapable of infecting others with his disease, and, judging, by macroscopic and microscopic appearances, the disease is, and has been for years, arrested. It is more satisfactory to suppose that, during its active stage, there had been a certain amount of irritation and intoxication of these particular groups of cells. Or, again, it may be that there has been a general intoxication of all the nerve elements to such an extent that, although the intoxication has been recovered from temporarily the cells have, notwithstanding, been weakened so that now, under the normal strain, these cells, being called upon to perform no more than the normal amount of work, become easily exhausted and undergo premature dissolution. This second possibility is mentioned inasmuch as, while it is cells in connection with the lower portion of the cord controlling the lower limbs that, in general, first give out, there are cases on record of those who, leading a sedentary life, do not employ the lower limbs in walking to the normal extent, but use the arms and upper extremities actively, and, in these, the paralytic condition is apt to manifest itself first in the upper extremities. It is the nerve centres controlling the groups most commonly in use that first undergo atrophy. A most suggestive example of what may be termed general abiotrophy, throwing light upon these more specialized abiotrophies has recently been adduced in Bardeen's studies upon the effects of X-rays upon frog's spermatozoa. By subjecting the sperm to the rays for a few minutes it is found that are capable of fertilizing the ova; the individual life begins, but the larvae, growing, all die prematurely; none survive beyond the second week. Apparently there is cell exhaustion after a certain early period.

INDICANURIA—ITS SIGNIFICANCE.

The presence in the urine of indican, or indoxyl sulphuric acid, has recently been the subject of much discussion, whether or not a proper significance has been ascribed to the occurrence of this substance in human urine is as yet unproven. Investigators, noting its association with various pathological processes, have forthwith concluded that the indican stands in etiologic relation. However, the possibility that the indoxyl compound is nothing more than evidence of some deeper metabolic perversion and not of itself necessarily of serious import must not be forgotten. In discussing a paper on "Indicanuria" by Dr. Judson Doland, which appeared in the Journal American Medical Association recently, Dr. Heinrich Stern emphasizes his opinion that the pathologic significance of indican has been grossly exaggerated. The fact that there occurs an increased production of indoxyl compounds in certain conditions does not justify us in ascribing to them toxic qualities, or that they stand at the foundation of a number of pathologic conditions. To cite a simple instance: They have no direct relationship to so-called pyorrhea alveolaris; they are neither its cause nor its result. Indoxyl compounds are normal urinary constituents; they are found in small amounts in every human urine, except in that of newborn and breast-fed infants. Indoxyl is even contained in the secretion of infants who obtain besides human milk also some cow's milk and, even in these instances, it occurs in the absence of any digestive disturbances whatsoever. Increased amounts of indoxyl as found in the urine allow but one interpretation, namely, that there exists some form of tryptic perversion. Some observers hold that the trypsin of the pancreatic secresion induces or favors the production of indoxyl. Their contention is based on two facts, viz: the tryptic quality as regards decomposition of the ingested proteid material, and the

decrease of urinary indoxyl in case of an occlusion of the pancreatic duct. Clinical experiments and observations have demonstrated that in the majority of instances of so-called indicanuria there is insufficiency tryptic function—and, consequently, abnormal putrefactive processes and the augmentation of intestinal bacterial flora. While it is possible that an indicanuria may occur with a process like pyorrhea alveolaris, and while it is even possible that perverse intestinal putrefaction may stand in some more or less remote relationship to the condition, there is no reason whatever in maintaining that indoxyl, one of the accidental products of such putrefaction, is the true causative agent. Pyorrhea alveolaris is an exceedingly chronic and progressive affection; indicanuria, on the other hand, is essentially acute, or at least, a limited occurrence. It is scarcely possible that the rather ephemeral indicanuria will give rise to the enduring pyorrhea. The same contension holds good with all other affections which at one time or another have been accused of having indoxyl as their causative factor. The indoxyl compounds are not toxic in themselves, they are of more or less accidental occurrence, and may point to an occlusion of the small intestine with a secruase of tryptic function and an increase of bacterial activity. Everything else belongs to the realm of speculation. Indoxyl occurs not only in the urine of carniverous but also in that of herbiverous animals. As a matter of fact, it is present in the urine of some of the herbivora in much larger quantities than in any of the carnivora. It occurs in enormous amounts in the urine of the horse, from which it is obtained for experimental purposes. It may also be prepared from the urine of the dog, but, is purer when derived from horse's urine. In the latter, it is present in larger proportion than in that of cattle. The reason for this seems to be the large cecum of the horse which permits additional and more complete disintegration of the ingested material. Indoxyl does not occur in the urine of the rabbit, as a general rule, but Stern found it therein in the presence of artificially induced obstipation. While indoxyl appears in the urine in larger amounts after a diet rich in animal food, it never attains pathologically that proportion in the human being which is normally present in the urine of the horse This, he suggests is evidence that animal food and the ensuing putrefactive processes are not the only source of indoxyl compounds and that vegetable ingesta and fermentation processes may give rise to indican production.

OPPORTUNITIES FOR SANITARIANS.

The present recognition of the value of prevention is attested by the public attendance at tuberculosis exhibits and by the hearty co-operation by editorial boards of lay periodicals in accepting articles upon the progress of medicine. The public do not attend meetings in the tuberculosis campaign merely from curiosity or because of inexpensiveness to themselves, but because they believe the work has a vital influence upon their lives and the lives of their friends, and that it concerns their personal interest. The people are ready to accept such teachings as are brought forcibly before them. This willingness to learn is proved by the confidence held by editors toward their readers. More from a sense of public demand rather than a willingness to become public benefactors do editors accept proffered articles upon hygienic subjects. It is a common occurrence to see articles upon preventive medicine classed in the magazines as of equal importance to those upon political, engineering, industrial, or governmental subjects. By publishing these articles the editors are doing a world-good. For this needed assistance in the work for which it labors the profession is grateful. Yet with the publication of more magazine articles, especially lay-written, the public will universally be taught that in other communities, if not their own, the practical application of hygienic principles has saved many dollars and many lives. Dr. H. B. Wood, in an article recently published in the *Univ. of Penn. Med. Bul.* thus speaks of the dawning of a better day in matters of health. He believes the chief reason for the scarcity of sanitarians is to be found in the fact that in the past there has been little opportunity for work for others than those having official connections. And indeed the inducements have been so little that many of those holding official civil positions were not able to accomplish much or have cared little about the development of the work, and hence the sanitary conditions of the country have suffered. Often owing to their official positions, many of the present sanitarians are not able to give the directions which are apt to be wanted; being limited in influence by the laws which define their authority, in many cases they cannot direct in all lines.

That there is a growing demand for civil sanitarians, or whatever they may be termed, there can be no doubt. At present, practically all medical men who have followed that bent are government officials in the Public Health and Marine Hospital Service, occupy official positions in a common-wealth or municipality, or belong to

the teaching staff of a medical college, and thus are hampered by agreements or work preventing outside activity. The demand for medical graduates specially trained in public health lines is so growing that it tends to become a serious consideration because the supply is not ready to meet the demand. The opportunity is here, yet is not recognized by the recent graduate, who, not realizing the overcrowding of all other medical branches, seeks to emulate the brilliant achievements of his teachers in the other departments.

The duties of the sanitarian require him to be a sociologist, an economist, a statistician, and a diagnostician, and that he shall have some knowledge of engineering, law, chemistry, and entomology. The foremost duty is educational, advisory. It is mainly through public instruction and not legal enforcement that the people will appreciate the value of prevention. Practical demonstrations of the ravages of tuberculosis and their prevention have more influence than the simple trite statement that it is cheaper to prevent tuberculosis than to care for its victims. The people must be shown that it is cheaper to furnish a town or a single house with pure water, unpolluted milk, or other foods than to pay for an epidemic. Places maintaining dangerous conditions cannot afford to take the risk. If resorts want the support of the people and the profession, they must supply conditions which are truly health-giving. To exterminate mosquitoes not only means the obliteration of a pest and a disease, but a marked increase in realty values. With most people the whole subject of public health is a matter of money expenditure, that plan which is the most economical being accepted. To the general townsman what may seem a hardship must be shown to be the better plan, as the closing of every school to check an epidemic of measles. These are but some of the duties of those who accept the opportunity to work for the public health.

LOCAL FACTORS IN ETIOLOGY OF TUMORS.

Among the many etiologic factors which are looked upon as important in considering the development of tumors, the idea, from which escape seems impossible, that trauma stands in positive causative relationship in many instances has persistently imposed itself upon the minds of observers. Certainly an imposing array of instances can be cited in which tumors, and especially malignant tumors, follow local injuries, either mechanical or toxic, or are associated with chronic inflammatory processes. Delafield and Prudden, in their excellent text book, say that bruises or contusions, particularly those involving the bones, are not infrequently followed by malignant tumors, and it is noteworthy that these tumors are most apt to be of the connective-tissue type —sarcoma, osteo-sarcoma, chondroma, &c. Epithelial tumors, on the other hand, are more frequently developed at the seat of repeated injury or long-continued irritation. Thus, epitheliomata are common in the mouth, near a rough ulcerated tooth, on the lips of pipe smokers, at the edges of chronic ulcers, on the skin of workers exposed to various chemical or mechanical irritants; in cicatrices; at the orifices of the stomach and at the anus. Finally, the frequent occurrence of carcinoma of the liver with cirrhosis, though less easy of interpretation than many instances of the association of tumors with chronic inflammation, is worthy of notice in this connection. It must, however, be remembered that undue significance should not be attached to the occasional association of tumors with trauma, prolonged irritation, and chronic inflammation, since in the great majority of cases these conditions are not followed by tumors, nor, furthermore, has it ever been possible to induce genuine tumors experimentally under these readily secured conditions in animals. The bearing of trauma upon the origin of tumors is to be held in mind in estimating the influence of sex, since males are in general more liable to injuries than females. The relatively common development of tumors in pigmented and other naevi of the skin illustrates the significance of local malformations as predisposing factors in the origin of tumors, although it should not be forgotten that many of the complex tissue growths often reckoned among tumors and called teratomata are really embryonic rudiments of another individual. While such rudimentary embryos may be large and present such diversity and arrangement of tissue as to render the character of the growth obvious they may, on the other hand, be very simple in character, as in some of the so-called dermoid cysts. These are all to be regarded rather as malformations than as genuine tumors, Several cases have been recorded in which through injury there has been a mechanical displacement of cells—*heterotopia*—from which in their new situation tumors have developed. These cases, which have been in a measure parallelled by experiments in animals, illustrate an important class of congenital tumors, often cystic in character, which arise from embryonal cell displacement, or, as is the case in many of the tumors of the neck at the side of bronchial clefts, from an imperfect closure of embryonal openings.

DR. RUSSELL MOVES TO ASHEVILLE.

Dr. E. Reid Russell, who for a number of years has resided in Charlotte where he devoted his attention to Diseases of the Eye, Ear, Nose and Throat, has decided to remove to Asheville. On January 1st, 1910, he will open his office in the latter city and there engage in the same special line of work in which he has won so enviable a reputation. Since coming to Charlotte, Dr. Russell has been prominently identified with many phases of the development of modern Charlotte. One of the prime movers in the establishment of the Presbyterian Hospital he has been deeply concerned in its welfare. His connection with the North Carolina Medical College has contributed in no small degree towards making that institution a success. One of the organizers of the new Charlotte Sanatorium he showed immense pride in this up to date hospital. Enthusiastic in every idea which means civic betterment and improvement, Dr. Russell never lost an opportunity to aid in carrying forward any movement which would contribute towards making the city thoroughly modern, sanitary and clean.

Genial, open hearted, whole-souled he is the personification of those lovable qualities which have so endeared him to those with whom he has been associated. No doctor in Charlotte numbers so many of his fellows among his friends. Energetic, as well as popular, he possesses that spirit which has made him wonderfully successful as a practitioner. His reputation is by no means local; indeed we believe that Dr. Russell is one of the best known specialists in the South. We but voice the sentiment of the city of Charlotte when we say that we are sorry to see him go. The faculty of the Medical College at the regular meeting, Dec. 6, accepted his resignation as Professor of Opthalmology, Otology, and Laryngology. And in accepting the following resolutions were adopted:

"Whereas, Dr. E. R. Russell has found it advantageous to lay aside his work here and remove from our midst,

"Be it resolved, That we, the members of the faculty of the North Carolina Medical College, do deeply depiore the loss which his removal imposes upon the teaching force of the school, not only because of his superiority as a teacher, but because also of the whole-souled interest he has manifested in upbuilding the school and making a success of it. Entering enthusiastically into the undertaking from the beginning he has unfailingly striven and given unstintedly of his time and talent. To him, as much as to any other man, is due the present and will be the ultimate success. of the institution. A wise counsellor and a painstaking instructor and the students will also miss him. Be it

"Resolved, Also that the medical fraternity of the city of Charlotte loses a brilliant member, a man who honors and is honored by his fellows: who has consistently upheld the highest ideals of the profession; whose attainments are eclipsed by those of no other man in this Southland and whose success is recognized and deserved. Be it

"Resolved, lastly, That in our loss the city to which he goes has gained a citizen who has always manifested the utmost pride in civic progress and improvement and a doctor who is an ornament to his profession."

It is wholly unnecessary for us to express our belief in his success in his new home. That is assured ere he has begun. We have only to wish him "God speed." May he live long and prosper.

THE DUTY OF THE PHYSICIAN.

Volumes could be written on the topic of "The Duty of the Physician" and still a great deal be left unsaid, for so manifold are the duties of the doctor that to chronicle them all would certainly be a most difficult task. But with the physician, like with every one else, some duties are more important than others, and therefore the realization of these more important ones is very essential to the good of our profession.

To his patient the physician must not only be the doctor but the friend, the counselor and advisor. This must be the case whether it is the head of the family who is being treated or the youngest member of it. He must be the pillar of strength on whom they all lean for support and comfort, not only in the trials, pain and tribulations of sickness, but in the other unpleasant things of life.

The real physician is always a student of medicine, seeking in every way to increase his knowledge, and therefore his usefulness to the profession at large, and to those that favor him by consulting him regarding their ailments. In fact to be a good physician this constant didactic and practical study is absolutely necessary.

It is a most important duty of the physician to know his limitations, even though the best and most diligent of students he cannot be a specialist in everything. He should not try to be. If he does he will probably fail at everything. Even though he make a correct diagnosis in his cases he probably cannot properly treat them, and, to the patient, at least, it is the end result that counts, not the brilliancy of the diagnosis. On the other hand the physician must not underrate himself to such an ex-

tent that patients are constantly put to the unnecessary expense of specialists.

Every physician should have a specialty, even though not practicing it to the entire exclusion of his general work. This is, I think, especially true outside of the large cities where, ofttimes, many things render the services of an exclusive specialist impossible to obtain. With the several men of a community doing general work usually, but each one making himself extra proficient in some one or two branches, interchange of patients can be brought about in a cordial manner, and without jealousy, and the patients accordingly benefited by special work, well done at moderate terms, which under ordinary circumstances the patient would have been unable to obtain.

During the special treatment, the patient for any other ailment is referred to his original physician, as also after the special treatment is finished.

Another duty of the physician is to do everything possible to avoid putting our profession on a purely commercial basis. Money is a necessary commodity the way things are constituted just now, but still our duty to attend to and heal the "sick and wounded" must be considered first. Lack of funds on the part of the patient must not mean lack of interest on the part of the doctor. Our poor patients must receive the same care as we would give the well-to-do. Perhaps when all is done and said we may find that our ultimate reward is as great or greater.

SOUTHERN MEDICAL ASSOCIATION.

The Southern Medical Association held its 4th annual meeting Nov. 9-11, in New Orleans, La., under the presidency of Dr. Giles C. Savage, of Nashville, Tennessee. The attendance, though small, when considered in relation to the number of doctors in the profession of the component States, was nevertheless satisfactory, representing as it does the flower of the medical profession of several Southern States. City attorney, Garland Dupre, of New Orleans, eloquently extended the welcome on behalf of the city. Dr. E. M. Hummel, chairman of the committee of arrangements, expressed the pleasure felt by the doctors of New Orleans because of the presence of the members of the Society. Dr. W. W. Crawford, of Hattiesburg, Miss., responded.

The annual oration was delivered by Dr. Isadore Dyer, of New Orleans: the address in medicine by Dr. John A. Witherspoon, of Nashville, Tenn.; the address in surgery by Dr. Francis G. DuBose, of Selma, Ala., and the address in ophthalmology by Dr. Alexander W. Stirling, of Atlanta, Ga. Dr. Witherspoon made a plea for the elimination of politics from medical boards, and urged the association to demand that the laws of the States included therein be so changed as to make it obligatory on the respective Governors to select members of State Boards of Health from a list of competent physicians recommended by medical men. He said that he believes that the facilities for medical education which we have in the South are more than sufficiently modern for our youth to obtain all the advanced instruction they need to equip them for the practice of the profession. Our colleges are numerous, manned by capable faculties and provided with the most scientific apparatus. We have men teaching in our schools who are surgeons and specialists of international reputations.

In his address Dr. DuBose emphasized the opportunities open to medical men in the South. He drew attention to the fact that many talented young men, feeling that broader fields and better facilities were offered, have followed the paths of greatness away from home. Greater honor is to him who makes opportunity arise around his nativity and becomes a worthy son on the soil of his birthplace, who stays among his own and adds to their uplift. For him who adopts as his home this Southland, let every act of fellowship make him feel so much at home that it becomes a reality.

Attention was called to the necessity of legislation for the regulation of the business of opticians in the annual address of the chairman of the ophthalmology section, Dr. Alex. W. Stirling, of Atlanta, and was heartily approved by the gathering of specialists who were his auditors. He urged that the doctors throughout the South do their utmost to induce the Legislatures of their States to introduce similar bills, so that opticians might be controlled by the State authorities and be compelled to undergo tests as to their ability.

Pellagra and tuberculosis received a large amount of discussion. A number of excellent papers were heard on both subjects. Of particular interest were those of Dr. W. J. W. Kerr, of Corsicana, Texas, Dr. C. C. Bass, Dr. D. Harvey Dillon, Dr. Geo. Dock, Drs. H. P. Cole and G. J. Winthrop, Dr. J. M. King and Dr. O. L. Pothier.

Papers of value on tuberculosis were presented by Drs. Wallace J. Durel, W. C. Gewin, George Brown, Arthur W. Ralls, H. P. Cole, Herman B. Gessner, S. T. Sheperd, Randolph Lyons, John A. Watkins, Benjamin B. Simms, H. L. Sutherland, R. F. Eyhridge, J. A. Storck, J. C. Moore, W. L. Champion, William Litterer and Roy Van Wart.

In the Section on Medicine Dr. George Dock, of New Orleans, was elected chair-

man and Dr. H. Eugene Mitchell, of Birmingham, secretary. Papers were read by Drs. Frank A. Jones, L. R. DuBose, J. R. Rathmell, Sidney K. Simon, W. W. Butterworth, E. M. Hummel, Marion McH. Hull, R. M. Van Wart, Isaac L. Kemann, Allen Eustis, George M. Niles, A. B. Cook and Seale.

In the Section on Surgery Dr. E. Denegre Martin was elected chairman, and Dr. Jere L. Crook secretary. Papers were read by Drs. Thomas P. Lloyd, W. T. Black, A. Jacoby, Isadore Cohn and W. F. Westmoreland.

Dr. E. C. Ellet, of Memphis, was elected chairman of the Section on Ophthalmology and Dr. U. S. Bird secretary. Papers were read by Drs. Carl A. Fox, Hilliard Wood, W. L. Simpson and W. Scheppergrell.

The following resolutions were carried by acclamation:

A resolution by Dr. Fred J. Mayer, of New Orleans, endorsed the hygienic work being done by several Southern States through medical boards and by instruction in the schools, and advocating the co-operation of the physicians in it.

A resolution by Dr. J. H. White expressed the appreciation of the association to Mrs. Russell Sage and Andrew Carnegie for their donation of $1,000,000 each to assist in the eradication of tuberculosis.

A resolution by Dr. E. Denegre Martin, of New Orleans, endorsed a speech made by President Taft in Augusta Dec. 8, in which the President said that he would recommend to Congress a "union of all the experimental departments of the government for the discovery of lines of health and the study of disease."

A resolution by Dr. F. G. DuBose, of Biloxi, Miss., thanked the members of the profession, the Tulane staff, the management of Touro Infirmary and the New Orleans newspapers for courtesies extended to the association.

A resolution attempting to secure the amalgamation of the Southern Medical Association with the American Medical Association, so as to make the former the southeastern branch of the latter, failed of adoption. At the same time a proposition to increase the scope of the Southern Medical Association by the absorption of the Southwestern Association and the annexation of Kentucky, North and South Carolina was tabled, thus leaving the organization the same in character as before. The report of the council recommended that the Association's magazine should suspend publication after the December issue, and that Arkansas, Oklahoma and Texas should be included in the Association. The last provision was voted down.

Dr. W. W. Crawford, of Hattiesburg, Miss., was chosen president for the ensuing year. Dr. Oscar Dowling, of Shreveport, La., was elected secretary and treasurer. The following vice presidents were elected: Dr. J. F. McInstry, Florida; Dr. W. S. Leathers, Mississippi; Dr. I. R. Synder, Alabama; Dr. H. L. Harris, Georgia; Dr. George Dock, Louisiana; Dr. Frank Jones, Tennessee.

Nashville, Tennessee, will entertain the Association in 1910.

EDITORIAL NEWS ITEMS.

Dr. Charles T. Haper, of Wilmington, N. C., is attending Clinics preparatory to devoting his time to diseases of the and Rectum, after Jan. 1, 1910, Wilmington, N. C.

One of North Carolina's most prominent physicians, Dr. S. W. Battle, of Asheville, has accepted the position as Surgeon-General of the North Carolina National Guard, succeeding Dr. Robert S. Young, of Concord, retired.

Judge Putney, of Albany, Ga., on November the 3rd, announced a gift of $55,000 to the Albany Hospital, which is to be named for his mother. One fourth of the gift to hospital is to be used to provide accommodations for negroes.

The Mobile Non-Sectarian Infirmary Association have succeeded in getting $60,000 subscribed for, toward the erection of the proposed institution in Mobile, Ala. The bond issue was for only $50,000, twenty years, six per cent bonds, but this has been over subscribed by $10,000.

A site on Spring Hill Avenue has been secured, where the building will be erected soon. The site and building, when complete will be worth $80,000.

At a meeting of the Iredell Anti-Tuberculosis Society, held in Statesville, N. C., the first week in November, the organization of the society was completed by the election of a board of directors, and the adoption of a constitution and by-laws. The directors elected are: Drs. J. E. McLaughlin, H. F. Long and T. E. Anderson; Messrs. J. A. Hartness, E. S. Millsaps, R. R. Clark, T. J. Conger, R. B. McLaughlin, William Wallace, Rev. J. H. Pressly, Prof. D. Matt Thompson and Mrs. A. L. Cobie.

The attendance was large, was much enthusiasm was manifested. Drs. Anderson

and Houck made short addresses on the tuberculosis situation, which were very interesting.

Dr. J. W. Summers, formerly of Davidson, N. C., has moved to Charlotte, N. C., to practice his profession. He has been living in Davidson for the past seven years, where he has built a large practice for himself, and made many friends there. Dr. Summers graduated from the North Carolina Medical College several years ago, and two years ago he took a post graduate course at the New Orleans Polyclinic, and he has located in Charlotte to continue the practice of his profession. Dr. Summers has his office over Blake's Drug Store.

The Third District Medical Association of Georgia met in Vienna, Ga., on November the 17th. A very interesting programme was carried out, and many papers of importance to the profession were read and discussed, among which papers on Pellagra, the American Hook Worm, and organized work in controlling tuberculosis. In the evening, the local physicians entertained the visiting members at a "turkey dinner."

This association meets semi-annually, and an election of all the officers was held at this meeting. The meeting was well attended by the physicians of the fifteen counties which make up the Third District.

The annual meeting and banquet of the Petersburg Medical Faculty were held November 18th in the hall of the A. P. Hill Camp, in Petersburg, Va. At this meeting the following officers were elected for the ensuing year: President, Dr. L. S. Early; Vice-Presidents, First, Dr. W. P. Hoy; Second, Dr. H. A. Burke; Corresponding Secretary, Dr. J. R. Beckwith; Secretary and Treasurer, Dr. William C. Powell. Court Medical—Drs. S. A. Hinton, J. Bolling Jones, Frank W. Haines, W. H. Crockford and D. D. Willcox.

After the business of the evening had been transacted, the faculty adjourned to the Chesterfield, where the banquet was spread, and remained in social gathering until midnight.

Drs. E. C. Davis and L. C. Fischer, of Atlanta, Ga., have recently opened a private hospital on 30 Crew Street. Especial attention will be given to Surgical, Gynecological and Obstetrical cases, though a limited number of medical cases will be accepted.

This building was especially designed for a private hospital, and is well located on a quiet residence street and is equipped with modern appliances for the care of patients.

Dr. W. N. King, a former North Carolinian, but who has been practicing medicine in Texas for the last several years, doing a large and lucrative surgical practice, has recently moved to Durham, N. C., where he will have charge of the surgical work in the new Watt's Hospital.

Dr. King has had splendid training for his work both in this country and in Europe, and it gives us a great deal of pleasure to welcome him back to North Carolina.

The Tri-State Medical Society, composed of the States of Mississippi, Arkansas and Tennessee, held its annual meeting in Memphis, Tenn., November 16 and 17. An attendance of two hundred included many of the most prominent men of the States named.

At the annual meeting of the Medical Association of the Southwest, at San Antonio, Texas, Nov. 9-11, the following officers were elected: Dr. G. H. Moody, President, San Antonio; Dr. T. Howard Hill, First Vice President, Kansas City, Mo.; Dr. C. E. Bowers, Second Vice President, Wichita, Kansas; Dr. D. A. Meyers, Third Vice President, Lawton, Okla.; Dr. A. J. Vance, Fourth Vice President, Oklahoma City; Dr. F. H. Clark, Secretary-Treasurer, El Reno, Oklahoma; Executive Committee: Dr. Grover Burnett, Kansas City, Mo.; Dr. J. S. Bassell, Wichita, Kansas.; Dr. E. S. Lane, Oklahoma City; Dr. J. A. Foltz, Fort Smith, Ark., and Dr. E. H. Carey, Dallas, Texas.

Dr. C. E. Bowers, Chairman of Arrangements Committee, Wichita, Kansas.

The next meeting place will be Wichita, Kansas, during October of 1910.

At the regular bi-monthly meeting of the Mecklenburg County Medical Society, held in Charlotte Dec. 7, the annual election of officers resulted as follows:

President, Dr. A. J. Crowell; 1st vice-president, Dr. F. O. Hawley; 2nd vice-president, Dr. L. B. Newell; 3rd vice-president, Dr. C. A. Misenheimer; secretary-treasurer, Dr. Robt. Lafferty: Delegates to State Society, Dr. S. M. Henderson, alternate Dr. C. A. Misenheimer, Dr. E. C. Register, alternate Dr. W. O. Nisbet.

At this meeting Dr. Crowell presented a paper on "Traumatic Nephritis" which was discussed at length by the Society.

Rex Hospital Formally Opened.

On November 18, the new Rex Hospital in Raleigh, N. C., was formally opened and dedicated with appropriate and impressive exercises.

The speakers of the occasion were Major

J. S. Wynne, Dr. A. W. Knox, president of the Raleigh Academy of Medicine, Mr. George W. Watts, of Durham; Dr. Hubert A. Royster, and Hon. R. H. Battle, president of the Board of Trustees of Rex Hospital. There was a beautiful musical program, appropriate selections being sung by a quartette composed of Mrs. Horace R. Dowell, Mrs. James McKimmon, Dr. Royster and Mr. Snow.

The exercises opened with the national hymn, "Our Country 'Tis of Thee," sung by the quartette, after which Rev. W. C. Tyree, D. D., pronounced the invocation.

The new hospital, erected at a cost of $50,000, occupies the same plot upon which the old Rex Hospital was located, but covers considerably more ground, taking in the vacant lot adjoining, which was owned by the hospital authorities, and includes three separate buildings, connected by corriders, in the shape of the letter "H." These buildings are: the Administration Building, the Patients' Building and the Surgical Pavillion, all of which are so constructed that in a few years there can be made, without any break in the architectural plan, a hospital with over a hundred beds.

Throughout the building is erected after the latest ideas in hospital construction. The floors are all of hard wood and most of the walls are laid with soapstone finish, except those in the corridors and operating room which are hard cemert, with four coats of enamel finish. The entire construction is semi-fire-proof, steel laths being used entirely, and the plumbing is the most magnificent feature of the whole building. This material itself cost several thousand dollars and it has been installed very satisfactorily. Porcelain and china constitute the chief material and all exposed parts are of fine nickel plate. The whole house is screened in copper wire screen. Private telephones reach all over the institution so that all parts of the building are in direct communication.

The system of ventilation is one of the most important features, air being supplied by means of openings which connect with large air-shafts, running to the top of the buildings.

Externally the building is a beautiful structure, being built of red brick and trimmed with pure Indiana lime-stone. The roof is terra cotta tile, which matches thoroughly the general scheme. The heating is by the direct-indirect system, by which air is conveyed from the outside to each radiator.

The Raleigh people and the doctors of Raleigh especially, are very justly proud of an institution which occupied so important a place in the economy of that city. For many years her hospital has done a great work; the promise is that it will do yet greater good.

Medical Society of Virginia.

The fortieth annual session of the Medical Society of Virginia was held Oct. 5-8, '09, in the auditorium of the new National Business College building of Roanoke, Dr. Stuart McGuire, the president, presiding. The attendance was unusually large.

The meeting opened with prayer by Rev. W. H. H. Joyce, after which Mayor Cutchin welcomed the medical men to the city. Dr. S. T. A. Kent, of Ingram, responded in behalf of the Medical Society. The president then made his annual report, in which he referred to the fact that the society now has 1,500 membership, the largest in proportion to the number of physicians of any State. He favored an increase of dues from $2 to $5 and the establishment of a permanent meeting place in Richmond or Norfolk, with preference for the former city as offering the greatest advantages. His reference to Dr. Landon Edwards as the physician to whom the life of the society was due was greeted with applause.

Dr. A. L. Gray, of Richmond, made the report of the executive committee.

Dr. George Stover, of Richmond, of the legislative committee, reported on the efforts of the committee to secure the repeal of the special tax on physicians, and presented a resolution protesting against the tax, which was greeted with applause.

Dr. Stuart McLean, of Richmond, reported on the relation of the physician to the plans of the States for the improvement of health conditions.

The constitution of the society forbids the holding of entertainments for delegates, but a reception was tendered to the women visitors at Hotel Roanoke on the afternoon of the 6th and an auto ride on the morning of the 7th.

The officers of the society were as follows:

President—Dr. Stuart McGuire, Richmond, Va.

Vice-Presidents—Dr. O. C. Wright, Jarratt, Va.; Dr. E. T. Brady, Abingdon, Va.; Dr. Reid White, Lexington, Va.

Secretary—Dr. Landon B. Edwards.

Treasurer—Dr. R. M. Slaughter, Theological Seminary, Va.

The Seaboard Medical Association of Virginia and North Carolina.

This association was held in Norfolk, Va., December 7, 8, 9. The social features of the meeting consisted of an oyster roast at Cape Henry, lunch at the Board of Trade rooms, theatre parties and receptions. The ladies of Norfolk gave several entertain-

ments for the visiting ladies who attended the session.

The officers of the association were:

President—Dr. Southgate Leigh, Norfolk, Va.

First Vice-President—Dr. B. W. Hathaway, Winfall, N. C.

Second Vice-President—Dr. C. D. Kellam, Norfolk, Va.

Third Vice-President—Dr. B. F. Halsey, Roper, N. C.

Fourth Vice President—Dr. R. L. Payne, Jr., Norfolk, Va.

Secretary—Dr. A. K. Tayloe, Belhaven, N. C.

Treasurer—Dr. Israel Brown, Norfolk, Va.

The following are the committees:

Executive—Dr. J. B. Sebrell, Chairman, Norfolk, Va., Dr. E. F. Corbell, Sunbury, N. C., Dr. J. C. Goode, Cheriton, Va., Dr. J. C. Rodman, Washington, N. C., Dr. C. Capehart, Roxobel, N. C.

Publication—Dr. E. C. S. Taliaferro, Chairman, Norfolk, Va., Dr. Geo. H. Carr, Portsmouth, Va., Dr. C. B. Griffin, Winton, N. C., Dr. I. Brown, Norfolk, Va., Dr. A. K. Tayloe, Belhaven, N. C.

Censors—Dr. F. D. Drewry, Chairman, Virgilina, Va., Dr. W. T. Griggs, Poplar Branch, N. C., Dr. W. Mitchell, Lewiston, N. C.

Obituary—Dr. L. Lankford, Chairman, Norfolk, Va., Dr. J. T. Burbage, Como, N. C., Dr. R. T. Styll, Newport News, Va.

Nominations—Dr. J. M. Gibson, Chairman, Suffolk, Va., Dr. J. R. Parker, Tyner, N. C., Dr. J. O. Joyner, Severn, N. C.

Invitations—Dr. Joel Crawford, Yale, Va., Dr. E. G. Moore, Elm City, N. C., Dr. W. J. Adams, Norfolk, Va.

Arrangements—Dr. J. E. Sebrell, Chairman, Dr. I. Brown, Dr. G. H. Carr, Dr. R. L. Corbell, Dr. C. W. Doughtie, Dr. W. E. Driver, Dr. H. R. Dupuy, Dr. S. H. Graves. Dr. C. R. Grandy, Dr. Jos. Grice, Dr. L. Gwathmey; Dr. E. T. Hargraves, Dr. W. L. Harris, Dr. D. L. Hirschler, Dr. Emerson Land, Dr. E. A. Land, Dr. B. Lankford, Dr. J. J. McCormick, Dr. H. Old, Dr. R. L. Payne, Jr., Dr. J. G. Riddick, Dr. L. T. Royster, Dr. C. A. Saunders, Dr. J. E. Sleet, Dr. J. R. Speight, Dr. R. S. Spillman, Dr. R. W. Sturgis, Mr. H. M. Dickson, Mr. J. A. Hall, Mr. A. S. Martin, Jr., Mr. Walter H. Taylor, Mr. T. S. Southgate.

The following are a few of the papers read:

President's Address to the Public and Profession—Subject, "Cancer," Dr. Southgate Leigh, Norfolk, Va.

Oration—"The Student Doctor," Dr. W. T. Parrott, Kinston, N. C.

Surgical Subject for Discussion—"Diagnostic Value of Exploratory Incision," Leader, Dr. D. T. Tayloe, Washington, N. C.

Medical Subject for Discussion—Malaria' Haematuria, Leader, Dr. J. W. Smith, Branchville, Va.

"Report of a Case of Gun-shot Wound of the Abdomen," Dr. R. S. Primrose, New Berne, N. C.

"The Local Life Insurance Examiner," Dr. B. M. Baker, Norfolk, Va.

"Varicose Ulcers and their Treatment," Dr. Chas. W. Doughtie, Norfolk, Va.

"A Case of Exfoliative Appendicitis," Dr. Joseph C. Green, LaGrange, N. C.

"Amputation of Thigh Under Adverse Circumstances," Dr. Lucien Lofton, North Emporia, Va.

"Treatment of Urethral Strictures." Dr. A. D. Parrott, Kinston, N. C.

"Treatment of Twenty-two (22) Cases of Intestinal Hemorrhage in Typhoid Fever with Adrenalin Chloride Solution without a Death," Dr. C. F. Eason, Hickory, Va.

"Quarantine Disinfection," Dr. C. L. Pridgen, Kinston, N. C.

"The Roentgen Ray in the Diagnosis of Pulmonary Tuberculosis," Dr. James W. Hunter, Norfolk, Va.

"Brief Report of Some Recent Surgical Cases," Dr. Armistead K. Tayloe, Washington, N. C.

"Sarcoma of Ovary, with Report of a Case," Dr. J. E. Rawls, Suffolk, Va.

"Report of a Case of Lizard in Stomach," Dr. A. M. Burfoot, Fentress, Va.

"Report of a Case of Tubercular Bone Disease," Dr. W. B. Barham, Newsoms, Va.

"Tonsils and their Removal," Dr. W. E. Driver, Norfolk, Va.

"Epilepsy," Dr. W. B. Murphy, Snow Hill, N. C.

"Report of a Case of Severe Injury to Back," Dr. J. W. Smith, Branchville, Va.

"Advice as to the Treatment of Acute Gonorrheal Urethritis," Dr. D. L. Hirschler, Norfolk, Va.

"The Great White Plague Among the Blacks," Dr. W. T. Griggs, Poplar Branch, N. C.

"Malarial Hæmoglobinuria," Dr. E. W. Lassiter, Rich Square, N. C.

"Hookworm Disease," Dr. E. F. Reese, Courtland, Va.

"Hookworm Disease," Dr. E. C. S. Taliaferro, Norfolk, Va.

"The Complications of Gonorrhea and their Treatment," Dr. C. W. Cowper, Norfolk, Va.

"Some Remarks on an Unusual Heart Case," Dr. O. C. Wright, Jarratt, Va.

"Pellagra." Dr. C. C. Wertenbaker, U. S. M. H. S.

"Report and Exhibition of a Case of Pellagra." Dr. Emerson Land, Virginia Beach, Va.

"The Double Catheterizing Cystoscope in Renal and Vesical Diagnosis," Dr. R. L. Payne, Jr., Norfolk, Va.

"Traumatic Retroperitoneal Hæmatoma, with Report of a Case," Dr. E. T. Hargrave, Norfolk, Va.

"Uterine Descent, Its Prevention and Cure," Drs. Gwathmey and Ruffin, Norfolk, Va.

Marriages.

Dr. Robley Dungleson Bates, of Newton, Va., and Miss Annie Walker Davis, of Fredericksburg, Va., were married at the home of the bride's brother, Mr. Hunter P. Davis, in Cumberland, Md., on November the 17th. Dr. Bates is a young physician of great prominence in Virginia, who since his graduation in 1906 from the Medical College of Virginia, has been practicing his profession in Newton.

Dr. Robert Scott Fitzgerald, of Richmond, Va., and Miss Juliette Johnston, of Danville, Va., were married at Hill Brook, the home of Mr. and Mrs. W. D. Hill, near South Boston, Va.

Dr. and Mrs. Fitzgerald will make their home at 2706 East Broad St., Richmond. Dr. Fitzgerald has become quite prominent in his profession in Richmond since his graduation in 1905 from the University College of Medicine, Richmond, Va.

Dr. Richard P. Bell, of Baltimore, Md., and Miss Mamie Campbell Grasty, of Staunton, Va., were married at the home of the bride's mother on November the 24th. Dr. Bell is a native of Staunton, but for the last few years has been living in Maryland.

Dr. Bell was educated in the academic and medical and departments of the University of Virginia, and for the last several years has held a position with the Union Protestant Infirmary of Baltimore.

Dr. and Mrs. Bell will reside in Chattanooga, Tenn., where Dr. Bell will practice his profession.

Deaths.

Dr. Richard Watson Fry, a leading physician of Roanoke, Va., for the past twenty years, died on November the 22nd, in the Jefferson Hospital, following an operation which was performed several days ago.

He was fifty nine years of age, and a man of great prominence as a physician, and also prominent in the different lodges in his city.

Dr. Fry graduated from the University of Virginia, Medical Department, Charlottesville, Va., in 1872, and since that time he has been engaged in the practice of his profession.

Dr. J. W. McLaughlin, of Austin, Texas, aged 64 years, and one of the most prominent physicians of the south, died at his home on November the 13th, after a lingering illness, due to a complication of diseases.

Dr. McLaughlin was formerly president University Medical School at Galveston, Texas, and was at several different times president of the Texas Medical Society. He graduated from Tulane University of Louisiana 1903; Chicago Post Graduate Medical School 1905; and from the Chicago Polyclinic in 1907. Dr. McLaughlin will be greatly missed in state and throughout the South.

Dr. A. F. Anderson, the oldest practitioner in Chester County, S. C., died at his home near Lowryville, on November the 1st. Dr. Anderson's health had not been good for some time, and his death was not unexpected.

Dr. Anderson graduated in 1845 from the Medical College of Georgia, Augusta, Ga., and since that time he has been a very successful practitioner of his profession.

Dr. J. P. Powell, a native of North Carolina, but for many years a citizen of Gresham, Ore., died at his home in that city recently. Dr. Powell was born in Gatesville, Gates County, N. C., October 4, 1822, and went to Oregon when he was ten years old.

Dr. Powell was a practicing physician for many years, having graduated in medicin from the Louisville Medical College, Louisville, Ky., several years ago.

Dr. J. L. Mann, a promising young physician of Anderson, S. C., died suddenly at the home of his father, Rev. Coke D. Mann, at West Union, S. C., on November the 29th. Heart failure was the cause of the death.

Dr. Mann graduated from the Charleston Medical College, Charleston, S. C., in 1901. He practiced several years in Branchville, S. C., and went to Anderson about a year ago.

Dr. N. G. Thomas, of Apison, Tenn., died at his home on November the 8th, after a lingering illness. Dr. Thomas formerly

lived in Chattanooga, Tenn., where he is well known and highly esteemed.

Dr. Thomas graduated in 1868 from Washington University School of Medicine, Baltimore, Md.

Dr. A. T Cotten, a well known and highly esteemed physician of Raleigh, N. C., died in Rex Hospital in that city on November the 10th. Until eight years ago, when his health failed, Dr. Cotten was one of the most prominent physicians in Wake County, but at that time he was forced to give up his practice.

Dr. Cotten graduated from the College of Physicians and Surgeons, Baltimore, Md., in 1879, and was granted license to practice medicine in 1884. After his graduation he was for a long time associated with Dr. Herndon, who was his first medical instructor.

Dr. Nathaniel Williams, one of the most prominent physicians of Tidewater, Virginia, died at his home in Hampton, Va., on November the 18th. Heart failure is supposed to b the cause of his death. He was sixty-six years old when he died. He was a medical student in Jefferson Medical College, Philadelphia, when the Civil War began, and left college to become a surgeon in the Confederate service. After the war he returned to Jefferson College and graduated from that institution in 1868. Since his graduation, he has been practicing medicine, in Hampton, where he has become very prominent as a practitioner.

Review of Southern Medical Literature

American Practitioner and News, September, 1909.

Pernicious Vomiting at Pregnancy.—Dr. W. B. Doherty believes that as there is a toxemia present in the majority of these cases, we should direct our measures accordingly. Malpositions of the uterus must be corrected, a catarrhal cervicitis treated with peroxide of hydrogen, Churchill's Tr. of Iodine, or a solution of Nitrate of Silver, 10 to 30 gr. to the ounce. Should the vagina or cervix be hypersensitive, a solution of cocaine 10 or 15 per cent. may be used.

If the cervix be stenosed and rigid, it may be dilated somewhat, though this procedure should be postponed as long as possible owing to the risk of producing abortion. Edgar states that he dilated the internal os in primiparæ, curetted the cervical canal, scraped the cervix free from erosions, applied pure carbolic acid to the cervix and canal and relieved the symptoms without interrupting pregnancy in a number of cases given up as hopeless, and sent to the hospital to have labor induced. The finger will often serve as a dilator, and in every case the greatest care must be used not to rupture the membranes. Rectal feeding may have to be used in desperate cases.

The Alabama Medical Journal, September, 1909.

The Doctor and Proprietaries.—Dr. C. L. Murphree says be ethical. A doctor is always shy of the druggist who attempts to practice near medicine over his counter and conducts a gonorrheal clinic in his back room. You can be assured that the medical profession appreciates good work and will be quick to co-operate with any pharmacist who is reliable and shows that he can be trusted. Though the doctors may have surrendered and abandoned the pharmocopea in the past they now show a disposition to return, and in many cases with exclamotions of surprise and wonder, that they ever permitted themselvee to forget a pharmacopea and to grope in fields which have brought confusion and doubt.

The Management of the Heart in Convalescence.—Dr. B. H. Hamrick believes that in convalescence from diphtheria the heart should be examined regularly for several weeks. Sudden cessation of the heart's action may take place as late as the sixth or seventh week, due to neuritis of the cardiac nerves. This tragic termination would be most deplorable. At times the phenomena of heart failure are rather slow in their developments. The pulse may become weak and rapid, or more rarely become slow, while the extremities become cold, the temperature falls and there supervenes in a few hours all the signs of collapse. So any symptoms during convalescence that point to the involvement of the heart should be carefully observed, and the patient prevented from putting undue strain on the heart whatever. The importance of this point cannot be too forcibly impressed. As a routine, where indicated, such drugs as iron, quinine and strychnine may be administered to advantage.

Journal-Record of Medicine, Sept., 1909.

Kidney of Pregnancy.—Dr. J. B. Craumers points out that if the kidney disease exists before pregnancy, well marked symptoms will develop in the earlier months. The appearance of the first symptoms after the sixth month usually justifies the assumption that the disease has had its origin during pregnancy and is nothing more than the temporary disturbance of that condi-

tion. It is always of paramount importpnce in any case of pregnancy to know what the condition of the kidneys may be, hence in all cases the urine should be repeatedly examined. If albumin appears in small quantity, and there are no casts, with no history of a previous nephritis, and no general systemic disturbance, dietetic and hygienic management may be sufficient. Meat should be eaten but every other day, large draughts of water should be systematically drunk, proper and adequate underclothing should be worn, and laxatives should be taken regularly.

Notes Gathered From a Study of Three Hundred Cases of Small Pox.—Dr. M. Cooke believes that small pox can be transmitted by the mosquito and sites the following:

During July, 1901, there were about two hundred and fifty cases of variola in Riverside Hospital, North Brothers Island. This island is situated at the foot of East 138th St., New York City. At this time mosquitoes and flies were numerous. During a stiff breeze one day several mosquitoes and flies were blown over to the Borough of the Bronx, about a mile away. This was followed by an epidemic of variola in that locality. Was this epidemic caused by either of these insects, or did the epidemic originate in some other way? It is reasonable to suppose that either might have been the etiological factor though the author is inclined to believe that mosquitoes transmitted the disease. Flies that had soiled their feet with the small pox pustules, etc., could easily carry the contagion. Mosquitoes could also carry it in that way, but he believes that they transmitted it by inoculation. Several times the author has been inoculated by mosquitoes and as a result a pustule would form. This was not uncommon in Riverside Hospital.

Gaillard's Southern Medicine, Sept., 1909.

Tubercle and Underwear.—Dr. L. Williams says that if this demon is to be cheated, the community must be purged of this preposterous heresy. The skin must be trained by cold baths and exposure to other cold influences adequately to perform its contractile duties. Underclothing must be in consonance with physiological principles; that is, it must be warm, absorbent and ventilated. Nature did not intend us to live in hot houses, neither did she impose clothing upon us. If we would live healthfully and allow our children to develop normally we must revert to natural conditions so far as the exigencies of civilized life will permit us. The necessity for pure air is gaining recognition, but it will not carry us far until we have recognized the equal if not greater necessity for rational and physiological treatment of the skin. Linen, cotton and silk undergarments can be made, and are made, so as to imprison air in their meshes. Such garments are every whit as warm as flannel to which they are superior in their possession of those absorptive and ventilating properties of which flunnel is so conspicuously devoid.

Virginia Medical Semi-Monthly, Sept. 24th, 1909.

Pellagra.—Dr. W. F. Drewry quotes Dr. Bardin's findings on postmortem examination of a case as follows, the brain and spinal cord being sent to Dr. Flexner, of Rockefeller Institute, New York:

Chronic pericarditis; hypertrophy of left ventricle; very marked chronic fibrous myocarditis; cloudy swelling of heart muscle; chronic endocarditis. Chronic adhesive pleurisy, both lungs; atelectasis of lower lobe, left lung; old, healed calcareous tuberculous foci both lungs; chronic passive congestion both lungs; chronic passive congestion abdominal viscera. Cloudy swelling of the liver. Atrophy of tho stomach. Acute duodenitis. Chronic atrophic enteritis; acute enteritis with erosions. Chronic and sub-acute colitis. Chronic appendicitis. Arterio-sclerotic nephritis, both kidneys. Arterio-sclerosis and atheroma of all the arteries, extraordinarily marked in the anterior coronary,

Intestinal Irritation—Treatment.—Dr. G. L. Sarvoss says that we are all prone to gorge ourselves with the new fruits and vegetables, and frequently tax our digestive apparatus to the utmost; in fact, we ingest such quantities of food as to give nature more than she can use in overcoming the natural waste. In this way, our bowels become overloaded with unnecessary material which furnishes an excellent culture medium for the toxin forming bacteria. Then follows the inevitable fermentative process, and toxins are made and thrown out in large quantities, not only to irritate the intestinal mucosa, but, if allowed to remain, to be absorbed, causing a general autoinfection with the many accompanying symptoms and discomforts.

When such a case is taken in hand early it is usually an easy matter to combat it. My treatment in such cases is to rid the bowel of its contents with draughts of a saline-effervescent laxative containing 60 per cent. of chemically pure magnesium sulphate. Continue this at half-hour intervals in from one to three teaspoonful doses until one of more watery bowel evacuations follow. When assured that the bowel is

empty of its irritating contents, begin giving at intervals of two hours two tablets, each tablet containing:

Zinc sulphocarbolate, gr. ss
Calcium sulphocarbolate, gr., j
Sodium sulphocarbolate, grs iiiss
Bismuth salicylate, gr., j.
Menthol, gr., one-fifteenth.

Dyspepsia—A Misnomer.—Dr. W. B. Steward believes that after exhausting the ordinary methods of examination it is well to remember that the fluoroscope and X-Ray photograph will often present to our eyes the real cause of trouble. So perfect have become the methods of this most wonderful of our diagnostic aids that beginning and advanced ulcers, cicatricial contractions, masses, organic displacements, and foreign bodies are recognized with comparative ease. By the administration of bismuth salts prior to the X-Ray examination it is possible not only to picture the size, location, and condition of the stomach but also the small intestines, the appendix sometimes, and the colon. It is well worth the time of every physician to read the most interesting article presented at the recent meeting of the A. M. A. at Atlantic City on "X-Ray Evidence in Gastric Cancer" by A. N. Crane, Kalamazoo, Mich., together with the discussion that followed in the section of the Practice of Medicine. With such a scientific and comparatively exact power at our command we owe it to have such an examination made in our doubtful but yet hopeful cases.

The American Practitioner and News, Aug., 1909.

Spasms of the Larynx.—Dr. W. Cheatham says that the paroxysms of laryngismus stridulus probably differ only in degree from the general convulsions that are also common in rickety children. In most epileptic convulsions there is laryngeal spasm which causes the initial "epileptic cry." During the paroxysms of hydroyhobia there is also a spasm of the glottis.

Lastly, spasm of the larynx is met with in certain general neuroses, in tetany rarely, in hysteria occasionally. In the latter it may occur in paroxysmal or more continuous form. The paroxysmal form constitutes one variety of hysteroid convulsion. The continuous form is very rare. There is tridor with inspiration and expiration, the voice is feeble, and there may be hysterical rapid breathing. The diagnosis from hysterical abduction-paralysis rests on the fact that the stridor in spasm accompanies inspiration as well as expiration, and the voice is more altered than in abduction-palsy, in which also the loud whistling inspiration contrasts with the almost noiseless expiration. The laryngeal symptoms usually partake of the character of the other disturbances that may be present: the spasm is accompanied by other spasmodic or convulsive symptoms: the paralysis, by loss of power or of sensibility. It is probable that some cases of supposed spasm have been really instances of abduction-paralysis.

Book Notices.

Modern Materia Medica and Therapeutics. By A. A. Stevens, A. M., M. D., Professor of Therapeutics and Clinical Medicine, Woman's College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal Hospital and to St. Agnes's Hospital; Assistant Physician to the Philadelphia General Hospital; Fellow of the College of Physicians of Philadelphia, etc. Fifth Edition, thoroughly revised in conformity with the eighth revision (1905) of the United States Pharmacopoeia. Philadelphia and London: W. B. Saunders Company. 1909.

This edition has been thoroughly revised, and contains many important modifications and considerable additions. The section dealing with the action and uses of drugs has been in a large measure rewritten. Articles dealing with a number of the newer remedies have been incorporated, and new formulæ have been added where it was thought they would make more clear the therapeutic application of the drugs under consideration. No doubt this edition will be found equal to existing requirements, and that it will prove as acceptable to students of medicine as the former editions have.

This edition is neatly bound in cloth, and contains 675 pages of reading matter and is well indexed. Price cloth, $3.50 net.

Exercise in Education and Medicine. By R. Tait McKenzie, B. A., M. D., Professor of Physical Education and Director of the Department of Medicine University of Pennsylvania; Fellow of the College of Physicians of Philadelphia and of the American Academy of Physical Education; President of the Society of Directors of Physical Education in Colleges; Sometime Lecturer in Anatomy and Medical Director of Physical Training at McGill University; Lecturer in Artistic Anatomy, Montreal Art Association, Harvard Summer School, and Olympic Lecture Course, St. Louis, 1904. With 346 illustrations. Philadelphia and London: W. B. Saunders Company. 1909.

This book is intended for students and practitioners of physical training, for teachers of the youth, for students of medicine and for practitioners, with the purpose to give a comprehensive view of the space exercise should hold in a complete scheme of education and in the treatment of abnormal or diseased conditions.

Exercise has so many points of contact with education, it is so intricately related to mental, moral and social training, each of which alone is so partial and incomplete that the progressive educationalist is now compelled to study its bearing on all three.

The author of this book has striven to, and has well brought out the comparison between medical science and exercise. It gives us a great deal of pleasure to recommend this book to instructors in colleges and high schools.

This book contains 406 pages, with 346 illustrations, is carefully indexed and neatly bound. Price, cloth $3.50 net; Half Morocco $5.00 net.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania; Gynecologist to the Howard, the Orthopædic, and the Philadelphia Hospitals, etc. Sixth edition, revised and enlarged with 847 illustrations, 43 of them in colors. Philadelphia and London: W. B. Saunders Company, 1909.

This volume is the result of the experience of a practice devoted for the last twelve years exclusively to gynecology in both its branches—obstetrics and gynecic surgery. The author has served during this period as consulting and attendant gynecologist and obstetrician in eight of the principal hospitals of Philadelphia. His experience in obstetrical complications and operations has consequently been exceptionally large. It has been the aim of the author to condense the text as far as is consistent with the comprehensive treatment of the subject.

The volume contains 992 pages, is well indexed and is neatly bound in cloth and half morocco. Prices: Cloth, $5.00 net; half morocco, $6.50 net.

Medical Gynecology. By Samuel Wyllis Bandler, M. D., Fellow of the American Association of Obstetricians and Gynecologists; Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital; Associate Attending Gynecologist to the Beth Israel Hospital, New York City. Second revised edition, with original illustrations. Philadelphia and London: W. B. Saunders Company. 1909

The various topics, which are so thoroughly discussed in this volume are viewed from the standpoints of the symptoms, the disease, the bimanual and microscopic findings, and the general physical and nervous state.

The knowledge gained by studying the diseases of women from these different points of view gives a more distinct mental picture and furnishes logical co-ordinated conclusions. This second edition has been thoroughly revised and the chapters on electricity and hydrotherapy have been enlarged. Several chapters on Head Zones have been added as an aid to diagnosis, and various other additions have not interfered with the purpose of keeping this book within the limits which tend to make a practical working compendium.

This volume is beautifully and neatly bound in cloth or half morocco. It is well indexed and contains 702 pages, with 150 original illustrations. Price: Cloth, $5.00 net; half morocco, $6.50 net.

Surgical Diagnosis. By Daniel N. Eisendrath, A. B., M. D., Professor of Surgery in the Medical Department of the University of Pennsylvania (College of Physicians and Surgeons); Attending Surgeon to the Michael Reese and Cook County Hospitals, Chicago. Second edition, thoroughly revised and enlarged, with 574 original illustrations, 25 of them in colors. Philadelphia and London: W. B. Saunders Company. 1909.

The popularity of this book on Surgical Diagnosis is evident by the fact that the second edition has been called for by so many people within two years after the publication of the first edition. The text of the previous edition has been thoroughly revised and much new subject matter has been added. Every effort has been made to include the newer methods of diagnosis and to amplify those which were taken up previously, especially the chapters on cystoscopy and ureteral catheterization. Many sections have been entirely rewritten.

Many additions have been made in the section on acute abdominal conditions. The section upon diagnosis of renal lesions has been entirely rewritten in order to keep pace with the rapid advances of this field.

This book is well bound, well indexed and contains 885 pages of reading matter. Prices: Cloth, $6.50 net; Half Morocco, $8.00 net.

Clinical Examination of the Urine and Urinary Diagnosis. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. By J. Bergen Ogden, M. D., New York, N. Y., Medical Chemist to the Metropolitan Life Insurance Company, New York; Late In-

structor in Chemistry Harvard University Medical School; Assistant in Clinical Pathology, Boston City Hospital; Medical Chemist to the Carney Hospital; Visiting Chemist to the Long Island Hospital, Boston, etc. Illustrated. Third edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company. 1909.

The revision of this book was undertaken with pleasure on account of the pleasant reception tendered the first and second editions by teachers and students of physiological and clinical chemistry, and also on account of the real need for changing the subject matter to conform to the advances which have taken place since the publication of the second edition.

A number of changes have been made in the methods, and a special effort has been directed toward bringing technique to a higher degree of efficiency. Much of the unimportant matter or the first two editions has been eliminated, and the author has intentionally omitted the consideration of a number of subjects which are not of cliuical importance.

The subject of urinary examinations for purposes of life insurance has been incorporated for the reason that a very large number of those who enter upon the practice of medicine will be called upon to make insurance examinations. In the portion of this book given up to this subject, the methods and technique have been so condensed as to be easily understood and quickly applied.

This volume is neatly bound in cloth, is well indexed and contains 427 pages, illustrated. Price, cloth, $3.00 net.

The Principles of Hygiene: A Practical Manual for Students, Physicians and Health Officers. By D. H. Bergey, A.M., M.D., Assistant Professor of Bacteriology, University of Pennsylvania. Illustrated. Third edition, thoroughly revised and enlarged. Philadelphia and London: W. B. Saunders Company. 1909.

This book has been prepared to meet the needs of students of medicine in the acquirement of a knowledge of those principles on which modern practices are based, and to aid physicians and health officers in familiarizing themselves with the advances made in hygienic practices in recent years. The rapid strides made in our knowledge of the entire subject of hygiene has rendered such a book as this one, based upon the more recent discoveries, almost a necessity to students of medicine. It has not been the object of the author, in writing this book, to treat the subject in an exhaustive manner, the object being merely to give the general principles upon which the health officer and the physician work in their r spective capacities in dealing with conditions which are detrimental to health or which tend to improve health. It gives the Journal a great deal of pleasure to recommend this book to students, physicians, and health officers, for whom it was prepared.

This volume contains 555 pages, is carefully indexed and neatly bound in cloth. Price: Cloth, $3.00 net.

Good Things in the November Lippincott's

Appropriately enough, both love and politics figure in the plot of Mary Imlay Taylor's new novel, "The Magnate of Paradise"—politics being appropriate to the season, and love to all seasons. The story is published complete in the November Lippincott's, which, by the way, is an extraordinarily fine number. The scenes of "The Magnate" are laid in the nation's capitol and in a live town in Missouri. While the name given to the latter is fictitious, the place is quite likely to be recognized by those who live or have lived there. Like other municipalities not confined to Missouri, the town is ruled by a political "gang." They are opposed by a young lawyer, who, as District Attorney, undertakes to cleanse the town's Augean stables and replace the rule of might by the rule of right. Unfortunately, Holland—the District Attorney—is in love with the ward of the Magnate of Paradise, who is the head and the moving spirit of the "machiner" All sorts of underhand schemes are resorted to in order to down the reformer, and thinks look dubious for a while. Eventually, however, the citizens awaken to the fact that Holland is fighting their battles for them, and give him enthusiastic, if tardy, support. The Magnate and his henchmen are overthrown, and the very likable hero wins the very lovable heroine. There are some intensely dramatic scenes, and the interest is not permitted to lag for a moment.

Some remarkable short stories will be found in this issue. One of them is "Mary and Martha at Lunch," by Marion Hill, author of "The Pettison Twins." This has rare originality and subtle humor, with a dash of pathos by way of seasoning. "Love and a Morning Ride," by Elizabeth Maury Coombs, is a striking tale of the Southland. Other good stories are "A Dead Letter Come to Life," by Anne Warner; "Lost—a Turkey," by Elliott Flower; "The Sight of the Soul," by Helen Talbot Porter; and "Much Ado About Nothing," by Thos. L. Masson.

Arthur Stunley Riggs, who has recently been made a Fellow of the Royal Geograph

ical Society, contributes a delightful paper called "Snapshots Around Naples." The authors who are represented in the department "Ways of the Hour" are Rupert Sargent Holland, whose novel, "The Man in the Tower" is having a big sale; Edwin L. Sabin, Joseph M. Rogers, and Ellis O. Jones.

Then there are that never failing mine of amusement "Walnuts and Wine," with its plethora of jokes, jingles, and anecdotes; "Cynicisms of an Optimist," by Walter Pulitzer; and poetry by Charles Hanson Towne, Clifford Howard, Walter S. Trumbull, Clinton Scollard, and Mary Byerley.

A Treat for the Doctor.

A Philadelphian, who has since then fortunately regained his health, was last year the subject of an extended examination by specialists.

"The examination seems to have delighted Dr. Blank," said the patient to one of the doctors, when they were alone for a moment, "for I have noticed that his eyes are positively beaming. I assume, then, that my case is not a grave one."

"Well," hesitated the physician addressed, "I hardly feel justified in saying that. But I understand from Dr. Blank that he is going to perform a number of interesting operations on you."—October Lippincott's.

Abstracts of the Leading articles of the month.

A Case of Rheumatized Arthritis in a Child aged two and a half years. Parkinson (British Journal of Children's Diseases) reports the case of a child aged 2 years and 4 months. The personal and family history were good; there was no history or evidence of syphilitic taint, or of tubercular disease. Three months before admission she began to suffer with pain and swelling of both wrists and the left ankle. She was confined to bed, and other joints, such as the knees and left ankle and elbows, became involved. She took food well, but wasted considerably, and as no improvement occurred she was brought to the hospital. On admission she was pale, with an earthy tint of skin, anæmic and wasted, weighing only 20 pounds. The skin was wrinkled and inelastic, and there was a brown staining of the deeper layers of the skin, diffuse on the whole, but here and there with detached areas on the dorsal surfaces of both feet, the front of the legs and the front and inside of the thighs, also on the adjacent part of the lower abdomen. This was identical in character, though not in distribution, with the staining seen in rheumatoid arthritis in the adult. The ankles and some of the tarsal articulations, wrists and knees, were swollen and extremely tender. There was some deffusion into the joint cavities, but no grating on manipulation; there was also much peri-articular swelling extending above and below the articulations. It was soft and boggy to feel, but did not pit on pressure; the skin was slightly reddened. Skiagraphs of the joints showed not the slightest changes in the bones. The lymphathic glands in the groins and axillæ were much enlarged and tender, some being as large as a small walnut; they were elastic and freely movable. There was some beading of the ribs and general signs of rickets. The heart and lungs were normal. The abdomen was enlarged from flatus; the liver appeared of normal size; but the spleen extended four finger breadths below the costal margin and was unduly hard. The urine contained no albumin. Examination of the blood showed 30 per cent. hæmoglobin, with 1,000,000 red corpuscles and 5000 leucocytes to the c.mm. The temperature on admission was normal, but began to fluctuate daily; on September the 29th it reached 103° F., and though normal in the morning generally reached 101° F. in the evening. The joint tro bles continued, and by the middle of October the temperature began to show regular exacerbations lasting four or five days, with intervals of comparative apyrexia. Thus from October 17th to the 22nd the evening temperature rose each evening to 104° F., from October 22nd to the 27th it was normal; from October 28th to November 7th, except for one day, it rose each evening to 104° F.; after this the rises were less high, though from November 10th to the 17th it rose from 102° to 103° F.; after this the fever abated. During the febrile periods all the symptoms were much more marked, the joint swellings increased, and the spleen and lymphatic glands also become larger. The child lay in a drowsy condition and seemed to be suffering from a general poisoning. After the temperature fell the spleen and lymphatic glands lessened in size, and by January, 1909, appeared to be nearly normal. The joint swellings also diminished, leaving great muscular weakness, but no tenderness nor adhesions. The child was in much better general condition, and the weight which had fallen to 18 pounds, rose to 20 pounds.

Three Cases of Henoch's Purpura. Parkinson (British Journal of Children's Diseases) mentions three cases. The first case was a boy, aged 8 years, who suffered from pains in the legs and abdomen and a purpuric rash over most of the body and limbs. The spleen could be felt. The urine

contained albumin and occasionally a trace of blood and casts. The abdomen was tender in the epigastric and right iliac regions, and there was occasional vomiting. The child was treated with two injections of horse serum without any improvement, but recovered and was discharged with the urine still albuminous. Case 2 was a boy, aged 6 years, suffering from abdominal pain and vomiting. There were purpuric spots all over the extensor aspects of the limbs. The abdomen was not tender. The urine contained albumin and occasionally blood. In hospital he was suddenly attacked with abdominal pain, and the abdomen was tender in the left lumbar region. The pain continued on and off for nearly two months, occurring in crises every two days. Blood was found in the srools during most of this time. Later the face became puffy, especially the lips and the eyelids, but the child began slowly to improve. The treatment was at first calcium chloride, and, later; three injections of horse serum. Two fresh groups of purpuric spots appeared while the child was taking calcium. The third case, under the care of Dr. C. Bolton, was a boy aged 6 years, who came into hospital with severe pain and passing blood in the stools, with a measly, non purpuric rash and coryza. The next day he passed blood and mucus by the rectum. The abdomen became distended, and it was thought that intussusception might be present, and the abdomen was opened, but none found. There were flecks of lymph in the peritoneum with some evidence of general peritonitis. He died next day. At the necropsy there was a general peritonitis, and on the small intestine were about 13 hæmorrhagic extravasations about the size of peas and projecting on both outer and inner surfaces of the intestine. About a foot from the ilo-cæcal valve there was a collection of much larger hæmorrhages. The small intestine was distended with gas, and the larger intestine as far as the splenic fissure where for about six inches it was quite dark from diffuse hæmorrhage, thickened and looked almost gangrenous. The diagnosis lay between measles and Henoch's purpura, the suspicion of intussusception not being verified. Dr. Parkinson thought it was a case of purpura, but the absence of blood and albumin in the urine was unusual. The case supported a suggestion of Mr. H. Lett, made in the "Reports of the Society for the Study of Diseases in Children," that it is advisable not to operate for intussusception in a case of Henoch's purpura unless an abdominal tumor could be felt.

Surgical Treatment of Benign Gastric Affections—Busch (Archiv. f. Klin. Chir.) from an analysis of 124 cases concludes as follows: 1. In stenosis due to ulcers, as well as cases of ulcer persisting in spite of prolonged internal treatment posterior retrocolic gastroenterostomy, with a circular double row of sutures, is the procedure of choice. In cases of relaxed and dilated stomach, a prophplactic enteroanastomosis after the method of Braun is indicated. 2. Following operation in cases of open ulcer the administration of acid reducing remedies, later combined with irrigation, as well as the careful selection of foods, is of importance. 3. Resection is to be considered whenever there is a suspicion of the malignant character of a gastric tumor as well as for severe callous ulcers, especially when neighboring organs (liver and pancreas) have been eroded. According to the conditions present in each case, either the radical operation of resection or the less dangerous gastroenterostomy is performed. Resection should be done after the manner of Riedel (circular). 4. In nervous affections of the stomach operatton is contraindicated, except an exploratory laparotomy, to determine whether an ulcer is present or not. Among the one hundred and twenty-four cases reported there were ten circular and segmentary resections and one hundred and four gastroenterostomies. Of the former cases, two died, while the mortality in ninety-six gastroenterostomies was nine deaths. Of the seventy-six cases of ulcer examined a year after operation, sixty-five were completely cured, eight had slight gastric disturbanees and in two cancer had developed. In twelve cases of resection the end-result was good, although two required another operation for stenosis. In sixty-one of sixty-four gastroenterostomies the end-result was satisfactory.

The Efficacy of the Anti-Gonorrheic Arbovin.—Nagel (Zeitschrift f. neuere physik. Medizin) says he has used arbovin for three years, with generally favorable results, and considers it indicated in gonorrheal diseases of the genital organs and urinary passages in the dose of two capsules thrice daily. He also employed it in the form of vaginal globules and bougies. Untoward effects from its use never occurred. The duration of the arbovin treatment is, on the average, between two and six weeks. In acute gonorrhea he considers it especially important to have the patient taking arbovin observe the dietetic and hygienic requirements. His most recent observations have certainly confirmed his earlier conclusions. The chief effects of arbovin are secretion limiting and analgesic: the discharge becomes less and the pain on urination disappears. The urine, at first cloudy, becomes clear.

Certain Bacillus Coli Infections.—Briscoe, in The London Medical Lancet, states that in treating Bacillus coli infections it is necessary to discriminate between the severe and milder types of cases. Because the bacilli are found in the urine it is not necessary at once to rush to vaccines, and even in the more chronic forms where vaccination will be the best remedy, it is inexpedient to neglect all other measures and rely on this alone. Many such cases must have occurred in the past when the condition was less well recognized and the patients have recovered, and no doubt many cases of unexplained febricula may have been instances of this condition. Therefore each patient ought to be treated according to the severity and duration of the disease. The milder forms will yield to the well recognized treatment of an ordinary febrile attack, a hot bath, a mercurial page, rest in bed, and reduced diet. Should the condition not clear up at the end of a week or ten days, then the sooner more radical measures are adopted the more likely is the condition to resolve. It should be remembered that the Bacillus coli is an inhabitant of the intestine and in cases of constipation flourishes to a marked degree. Therefore it is important to promote a fairly free evacuation of the bowels daily. Without such an evacuation all other treatment will be unsatisfactory. In the second place it is well to give some intestinal antiseptic to hinder the growth of the organism, such as creosote or small doses of calomel (1-20 of a grain) after each meal. This latter drug in such doses has in his hands proved fairly satisfactory, but some prefer to try to replace the Bacillus coli with a lactic acid bacillus by means of artificially soured milk. Seeing that many of the preparations of lactic acid organisms contain no living bacilli this is less certain than it appears. The Bacillus coli flourishes in an acid medium; it is therefore advisable to alter the reaction of the urine, which should be rendered alkaline by the administration of the drugs usually employed to this end, to which urotropine in 5 or 10 grain doses may be added. This relieves the patient of many unpleasant symptoms and hinders the proliferation of the organism. The urine should be tested from time to time to see that enough alkali is being given, and it is sometimes advisable to give rather more than the usual dose the last thing at night. This will often be successful in procuring a good night's rest without the use of anodynes. Should this treatment not be successful in diminishing the numbers of the microorganisms in the urine and relieving symptoms it is advisable that inoculation should at once be resorted to. It is undoubtedly best to employ a vaccine prepared from the organism which is attacking the patient, and a vaccine can easily be prepared in the course of three days. Inoculations should be given every seven or eight days. The initial dose for an adult of 50,000,000 of dead organisms (estimated according to the method advised by Sir Almroth Wright) will be comfortably tolerated. The second dose should be half as much again, and so on. It is also advisable to have a fresh vaccine prepared each month, better results being obtained than when the same vaccine is employed continuously. This may be explained on one or two grounds. Either the vaccine loses some of its potency or the organism is able to develop power to protect itself from the antibodies produced by the host as a result of the vaccination. It will be remembered that this latter occurs in the case of trypanosomes against which atoxyl is administered. Whichever explanation is correct, the fact remains that greater improvement takes place when the vaccine is freshly prepared every month. It must always be remembered that the condition, when once well established, is very refractory, and it is well to start treatment early and to carry it out energetically. The general health must also be seen to and any abnormality should be rectified.

The Treatment of Irreducible Intussusception by Lateral Anastomosis.—Parry (British Journal of Children's Diseases) says that the method of treatment was said in the text-books to be only applicable to chronic cases. Two acute cases were referred to, one of Mr. Parry's and one of Dr. Rutherford's. On the tenth day in Mr. Parry's case, no trace of a tumor could be felt, and this was verified by examination. Mr. Parry put forward, firstly, the simplicity and safety of the method as compared with excision; secondly, that an alternative line of treatment was afforded to that of severe manipulation in irreducible intussusception; and, thirdly, the disappearance of the tumor. Mr. H. Stiles said the paper was a landmark in the treatment of irreducible intussusception. He had become pessimistic on the subject. Patients had died after resection where he thought recovery would take place. He had been agreeably surprised that a good many cases had recovered where there had been extreme difficulty in reducing the intussusception, and even after splitting the peritoneal coat. The gangrenous cases were very difficult, and his only criticism of the paper was that the treatment was hardly applicable to those. He had had better results when he operated as quickly as possi-

ble, and though the children often looked moribund it was wonderful, if the treatment was properly carried out—no drugs and plenty of saline by the bowel—how they recovered. Once they had got over the shock he was no longer anxious about them. The writer thought the method was very sound.

Acute Leucocythaemia in a Child Aged Eight Years. Lapage (British Journal of Children's Diseases) says that the first symptoms of the illness were headaches, some wasting, and a slight discharge from the ear, with drowsiness, and irritability if roused. After these symptoms had lasted for 7 to 8 days the child began to vomit and to complain of tingling and numbness of the fingers of both hands. There was no history of hæmorrhage. tonsilitis, diarrhœa, dropsy, fainting or impairment of vision. On admission three weeks after the beginning of the illness the temperature was 100°, and there were chains of enlarged glands in the axillæ, the groins, the anterior triangles of the neck, the glands being discrete and none of them larger than a pea. There was no œdema, otorrhœa, or exophthalmos. A slight degree of vomiting was present. The stools were loose, but showed no other abnormality. The spleen reached down below the brim of the pelvis, and the liver reached to one inch below the costal margin. There were signs of consolidation at the base of the right lung. The reflexes were increased. Kernig's sign was present, but not well marked. Babinski's sign was present on the right side. The blood count gave reds 1,600,000, whites 432,000, hb. 35 per cent., index 1.1. There was an enormous number of large lymphocytes. The blood was whitish in appearance, resembling blood mixed with pus. It was less coagulable than normal. Death occurred one week after admission. The spleen diminished in size during the last days of life; post mortem, that organ showed early fibrosis. The bone marrow of the femur and sternum was red in color, and that of the ribs apparently normal. Pneumonia was present in the lungs, and there were ecchymoses on the visceral surface of the pericardium, sections of which showed infiltration of lymphocytes. A terminal infection with streptococci and staphylococci was found.

The Exudative Diathesis.—Ventura (Riv. di Clin. Ped.) states that in infancy, and especially in the nursling, several phenomena natural to that time of life and others that are of a pathological nature group themselves into a sort of exudative diathesis, determining oscillations of turgescence in the various internal and external organs. These occur especially at the time when the bones have not sufficient strength to sustain the body. The exudative diathesis is an individual condition, in part hereditary, under favorable conditions remaining latent, but brought into action by errors in diet in the nature of an excess of fats. The lesions affect the skin, mucous membranes and internal organs, there being transient periods of turgescence. Only by frequent repetition do these cause changes that are permanent. The characteristic of these manifestations is their evanescence. They appear at a very early age and lessen after the second year of life. As to hereditary influences we recognize advanced age of the progenitors, debilitating diseases, etc. The diathesis generally occurs among the working classes, less often in persons of leisure. The geographical tongue, lasting but a few days at a time, is noted as one of the manifestations of this state, accompanied by no disturbance of health, and appearing in several members of the same family. The tonsils and pharynx are subject to the transitory periods of congestion and irritation, the nose being stopped up and dyspnea being caused by the swelling. Collections of secretion in the tonsillar crypts may occasion foul breath and anorexia. Finally a permanent hypertrophy of the tonsils arises from frequent repetition of the attacks. The extirpation of such tonsils is not advisable. Acute bronchial attacks, characterized by asthma, with little secretion, and no physical signs come under this head. The conjunctival and vesical mucosa, and even the intestinal mucous membrane may be affected. Various cutaneous eruptions occur. Yellowish crusts, the removal of which leaves a wet, secreting surface, may form on the infant's scalp. Strophulus, urticaria, and pustules are all caused in this way. These manifestations occur suddenly and disappear as quickly. Enlargement of the liver is another frequent manifestation. Examination of the blood and urine in cases of this kind gave no unusual phenomena. The treatment of this condition exists in giving only enough food to sustain life, the foods that cause formation of fats being cut out of the diet. If the infant is nursing, the mother must employ such a diet as will reduce the amount of cream in her milk. The child should have change of air at the same time. Medicinal treatment is directed only toward palliating the local symptoms.

The Diagnosis of Beginning Tabes.—Kann (Berliner Klinische Wochenschrift) speaks of the importance of early recognition of tabes, because so much can be done

at this stage to check the progress of the disease and produce apparent cures.

Among the earliest symptoms, the writer says that the pains are very important, not only the lightning tabetic pains, but even dull boring pains, and at times trigeminal and intercostal neuralgias. Slight bladder irritability and inability to start the urinary flow are significant.

Quite frequently, before the Argyll-Robertson pupil can be found, there is a difference in the size of the pupils. Sometimes miosis or mydriasis are present, but especially the first. A slight paresis of the ocular muscles, especially in relation to the abducens nerve, may occur many years before any symptoms develop.

The tendon reflexes are very important. Often we find an increased knee jerk or a difference between the two sides, long before the Westphal symptom develops. A loss of the Achilles tendon reflex occurs quite frequently among the earliest manifestations of tabes. The reflexes of the upper extremities are of much less significance. The hypotonus of the muscles of the extremities should be sought for in all cases.

Sensory manifestations can almost always be found very early, if careful examination is made, such as a decrease of the pain sense in the lower extremities, segmental anesthesia on the trunk, especially near the breast and back. Very characteristic are hyperesthesias in relation to cold objects. Delicate tests, such as the inability to feel the vibration of a tuning fork placed on the tibia, often enable the observer to detect early sensory disturbances. Any of these symptoms, especially with previous syphilitic history, are very significant. Among the more recent work, cyto-diagnosis showing an increased lymphocytosis in the cerebro-spinal fluid, is a great aid. The Wassermann reaction should also be tried in all suspected cases. The cerebro-spinal fluid, even in the earliest stages of tabes, shows an increase of albumen and globulin.

Speech Fright—Every one knows what stage fright is, and most of us who have had to recite speeches at school or have taken part in private theatricals have experienced the unpleasant and often paralyzing feeling. It is not the raw novice who suffers most; it might almost be said that the greater the actor, the more frightened he is, especially at a first performance. One of the most celebrated of living actresses used to suffer so much on first nights that it was difficult to keep her from throwing up her part, and one of the most distinguished of living actors is in such a state of nervous trepidation and irritability when he is about to assume a new part that his friends dare hardly speak to him for some days before the first night. Orators are subject to the same infirmity. Cicero confessed that he could never mount the rostrum without a feeling that his knees were giving way under him. In his "Sixty Years in the Wilderness," W. H. Lucy relates the following examples of similar nervousness on the part of famous speakers of our own day: "On a night in June in the session of 1877, I observed Bright seated on the front opposition bench for an hour. The subject was a proposal to abolish capital punishment and Bright had evidently intended to speak, and might, of course, have chosen his own time. He missed his chance, and deferred his rising till after midnight, when the debate was about to collapse. Chancing to meet him at dinner the next night I made remark about his delayed interposition, when he told me there had come upon him a species of stage fright that possesses all new members on first addressing the House. Even Mr. Gladstone was subject to this influence. This would be incredible to observers of his later manner were it not affirmed by his own testimony. In the diary of his second session he records how, preparatory to making a speech, he silently offered earnest prayer for Divine assistance." Lord Beaconsfield, we believe, impassive as he looked, was no stranger to the sensation.

In this country, where platform or postprandial oratory is forced by national usage or social exigencies on so many reluctant victims, speech fright naturally is common To some, indeed, public speaking is a task beyond their powers. They need not be ashamed of this. Many of the greatest masters of language might say with Alphonse Daudet, when invited to deliver an address: "Je n'ai jamais pu proferer une parole devant une audience quelconque." But except to those who deliberately shun social gatherings, there comes a time when they are called on to make a speech. What certain persons go through on such occassions amounts to agony, and their hearers suffer in sympathy or are irritated by their struggles. Charles Darwin tells us that, when he was a student at Edinburgh "one evening a poor young man got up and after stammering for a prodigious length of time, blushing Primson, he at last slowly got out the words, Mr. President I have forgotton what I was going to say." The poor fellow looked quite overwhelmed, and all the members were so surprised that no one could think of a word to say to cover his confusion,"

We have received a piteous appeal from

a medical practitioner on behalf of a patients of his who suffers at such times from "extreme nervousness and an all 'gone' feeling accompanied by palpitation"—in short, from the symptoms of speech fright. The question is, can medical art give relief in such a case? In the particular case referred to, the administration of 20 grains of potassium bromide an hour before the dreaded moment has not been of much use. Our correspondent asks if a small hypodermic injection of morphine not sufficient to cause drowsiness, would do good. We have no experience of this treatment, but it is within our knowledge that the great actress who has been mentioned was enabled to face the trying ordeal of the first night by means of 7 drops of laudanum. She learned to rely confidently on this medicine, which never failed of its effects. As the drug was given only on these special occasions she never contracted the opium habit. Years after learning empirically this method of preventing stage fright, we read that John Hunter, who disliked public speaking, never gave the first lecture of his course without nerving himself for the trial by taking 30 drops of laudanum; this gave him courage to face his audience. We think it likely that laudanum is used as a preventive of stage fright more frequently than might be supposed. Lord Erskine, the celebrated advocare, who suddenly appeared in the course of the trial of Queen Caroline, disconcerted the prosecuting counsel, for a great speech was naturally expected; after saying a few words, however he fell into the arms of Lord Stanhope, who was sitting next to him. As Erskine was an old man at the time, it was thought that the strain and the excitement had proved too much for him. The truth, however, appears to be that he had drugged himself for the effort with opium, and had taken an overdose. Our readers do not need to be told that this method of conjuring away speech fright must be used with the strictest precautions against abuse.

We have seen it stated that an American profession was in the habit of giving 10 drops of fluid extract of gelsemium three times a day to students about to offer themselves as a sacrifice to examiners; the effect is said to have been that "all feeling of uneasiness was abolished during the ordeal, and the students were able to tell just what they knew." This treatment would equally well apply to speech fright, but we cannot testify to its efficacy from personal knowledge. As it is, harmless, however, it might be given a trial. The very worst method of preparing oneself to speak in public is the arousing of "Dutch courage" by means of alcoholic stimulant. —British Med. Jour,

Complications of Scarlet Fever.— Gordon London Practitioner, says that in the accompaying nephritis the renal tubules are not as a rule disease, but are merely pressed upon by the intestinal infiltration the natural tendency is to complete recovery. We give these organs as little work to do as possible; diuretics, or renal stimulation of any kind is harmful. We encourage action of the skin by hot packs or hot baths, but when the electric current from the main is available, free perspiration is well induced by placing a cradle covered with hot blankets around the patient; to the top rail of this cradle several incandescent lamps are attached, and the current is turned on. Upon diaphoresis being established, this cradle is withdrawn and the hot blankets themselves envelop the patient, by which means the risk of exposure to cold is diminished.

The bowels are kept open by means of salines; coma, with suppressed urine, requires venesection and subsequent intravenous saline solution. Dry or wet cupping may be employed, but these are likely to be useless. Uremic convulsions are rare in children; they are not often alarming; they may conveniently be allayed by chloroform inhalation, followed by chloral hydrate per rectum. Diaphoresis is here again essential. we avoid pilocarpine especially in children, by reason of its uncertain action. Albuminura does not usually require special treatment; it does not require confinement or prolonged milk die; the albumin is likely to diseappear when such patients are fed in an ordinary way and are allowed to get up; the microscope will at once determine whether the albumin indicates a lesion or is merely symptomatic.

Scarlatinal endocarditis decidedly requires attention; rest in bed for the milder forms, with little alteration in the puls-rate rhythm or tension; the graver cases are no doubt rheumatic in origin and require the salicylates with alkalies- The cervical adenitis of convalescence usually presages nephritis, the urine being frequently found to contain blood and albumin two days later We avoid formentaions, but if the neck is painful we pack with cotton-wool and and bandages firmly. The incision for pus (should this supervenue) should be made at the lowest point, and a capillary dram inserted; it may be necessary to scrape thoughly the abscess cavity, following this with a packing of dry antiseptic gauze. In hospital practice we separate the convalescent from the acute cases by transference to another ward after the

third week, or perhaps sooner in mild cases. Before leaving the acute ward the patient gets a bath, is anointed with oil, puts, on disinfected clothing and has his throat and nose well irrigated. Even in private cases the fauces and nose well irrigated during convalescence. A warm bath (daily) is followed at least three times a week by anointing of the skin. As much time as possible should be spent in the open air, with fairly active exercise. In all ordinary cases the diet should be whatever the patient can eat and enjoy; we should be careful that the milk consumed does not contain tubercle bacilli, as many cases of tuberculosis, both pulmonary and glandular have no doubt been caused by the ingestion of tuberculous milk during convalescence from scarlet fever or measles.

Cerobrospinal Fever.—Larkins, in the London Practitioner, mentions the sera used in the cerebrospinal fever: The use of antidiphtheritic serum was suggested by Wolf, of Hartford, Connecticut, to whom it occurred that there might be some antagonism between the two organisms, because he noticed that there was a decrease of diphtheria coincident with the increase of cerebrospinal fever. He then found that pure cultures of meningococci were killed by antidiphtheritic serum. The author, therefore, treated four cases of cerobrospinal fever by antidiphtheritic serum and all recovered. The success hoped for by this method has, however, not been realized. Antipneumococcal serum seems more likely to be of use than antidiphtheritic, owing to the close resemblance of pneumonia to cerebrospinal fever, and of the pneumococcus and meningococcus to one another. He has used it once, owing to the presence of some Gram positive diplococci in the cerebrospinal fluid. No good result followed its use. Jevers and Elder, however, noted improvement after its injection, saying that the patient became quieter and went to sleep; the temperature rapidly fell, followed by a rise some time later, but the patient seemed better and the pulse stronger. The production of a really satifactory antimeningococcal serum should not be long delayed, and to this we must look as delayed, and to this we must look as being the most rational, and the best method of combating this disease. Jochman produced a serum for which he claims distinct therapeutic properties; with it he was able to confer immunity to mice against six times the ordinary lethal dose of the cocci. For humans, doses of 20 c.c. are required either intraspinally or subcutaneously. Of seventeen patients treated by it only 5 or 29.4 per cent died. Ruppel's serum he tried on three patients without success. Recently Flexner's serum appears to be giving very satisfactory results, and, where used, to have brought down the mortality considerably.

The Treatment of Alopecia with Ultra-Violet Rays.—Joachim's (Deutsche Med. Wchschrft.) observations concerned a number of cases treated in the Fiusen Clinic of Dr. Nagleschmidt, in Berlin, with a Heræus lamp modified by Nagelschmidt, which is relatively inexpensive and easily handled. The patients suffered for the most part from alopecia areata, and, as a rule, other methods had been tried unsuccessfully for a considerable length of time. Concerning the technique of the procedure, the parts which were not to be treated were first covered with black paper; the bald portions were then irradiated for twenty to thirty minutes, from as near the source of light as possible, in one or several sessions, according to their size. The radiation is usually followed by a swelling of the scalp, which promptly becomes associated with redness, often a mild exudation, while in certain cases there is a considerable formation of vesicles. The subjective disturbances are frequently trifling, but may occasionally be quite severe, they are best relieved by compresses with a resorcin solution (½ per cent.). The reaction subsides in from two to three weeks, under formation of crusts, followed by desquamation in large shreds. At the end of four weeks the irradiation is repeated, the duration of the session being lengthened by one-half. This gives rise in most cases only to hyperæmia, persisting for three weeks. A satisfactory cosmetic result is generally obtained as soon as after the second, at most the third radiation, but the treament should be continued in intervals of a month until the last remnant of the foci of alopecia has disappeared. A relapse is very likely to occur, unless this is done, and will require from five to seven radiations for its control.

On Being Tired.—Brunton contributes to the London Practitioner a very interesting article 'On Being Tired," in which he gives the various attitudes of persons exhibiting the characteristics of fatigue as against those of energy. He says: "One constantly hears the complaint from patiennts that they are 'always tired,' and indeed some people avoid working on the ground that they are 'constitutionally tired.' Other people call them lazy, but it is quite possible that in many cases there is some physical condition in the person which renders exertion specially distasteful to them, although other people cannot observe it."

Prof. von Poehl (vide "Rational Organo-

therapy") deals with these conditions when treated with Spermin Essence as a catalytic agent and coefficient of vital energy. Spermin is the stimulant of the alkalescence of the blood, or rather it brings back to the normal state, as Loewy, Richter, and Poehl have shown. The organic acids which are formed by over-fatigue and over-excitement of the nervous cells are oxidized, the products of change of substance made nontoxic or rendered soluble, and thus eliminated from the cells.

If we accept the condition of "being tired" as within the sphere of therapeutic treatment, and as being brought about by auto-intoxication, Poehl's catalytic agent, Spermin, seems indicated as a ferment of the oxidation of the cells.

The Souchon Museum of Anatomy at Tulane University.—By resoulution of the Board of Administrators of the Tulane Educational Fund, the Museum of Anatomy of the Medical Department of Tulane University was named the Souchon Museum of Anatomy, in honor Dr. Edmund Souchon, professor emeritus of anatomy at the university. This museum occupies a large room, eighty-five by thirty-six feet, in the new Richardson Memorial Building, and is well lighted by means of numerous windows and skylights. A unique feature of the museum is that the preparation stand in large glass jars on tables arranged in rows, instead of being in cases against the wall. All these specimens are real, the dissections having been made after a new method, elabyrated by Dr. Souchon. There are sixty-seven jars with preparations on osteology, forming a very complete collection, unequalled by any medical schhol, except Harvard. Next come four hundred large jars containing dissections showing the permanet color of muscles, vessels, nerves, and organs. Of these, two hundred are good and two hundred have to be made over, as it is believed that they can be made very much better by the improved method. The two hundred good ones comprise the articulations, muscles, arteries, veins, lymphatics, nerves, spinal cord, brain, and surgical anatomy; all with permanent color. The other two hundred relate almost entirely to visceral anatomy and will be completed withih two or three years. The great value of this museum is to prepare students for the dissecting room, and to assist them in making dissections. It will also enable them to review their work in anatomy rapidly. It has been suggested by Dr. Souchon that two or three hours a week should be allotted to the study of the preparations by the students, and that a quiz on these preparations should constitute a part of the examination in anatomy.

Maniacal-Depressive Insanity.—Bolton in Brain, London, concludes that the maniacal depressive generalization is untenable as a description of a special kind of mental disease. He welcomes it as indidative of a tendency to decrease the number of "mental diseases," and thereby to make a further advance towards the conception that insanity is one disease. This disease is due on the one hand to various grades and forms of cerebral subevolution, and on the other hand to various grades to cerebral involution and dissolution.

He does not regard the recurrent or "circular" type, as idiopathic in maniac-depressive insanity or in anything else. While certain types are developmental rather than obscure or accidental in origin, he believes we are "circulaires," whether sane or insane, on account of the functional activlty of the cerebrum.

The writer regards insanity as one disease in which there are various clinical "forms," which he divides into two groups: (1) Cases which may be regarded as "sane" or "normal" in the intervals. (2) Cases of greater cerebral degeneracy. The former group includes all types of recurrent cases, whether capable of recovery or not.

The latter includes the following general types: (a) "Moral" cases, (b) simple emotional chronic mania, (c) chronic mania with incoherence and delusions, (d) "cranks" and asylum curiosities.

The cases in these clinical subclasses show: Alteration of moral sense, alteration of emotional or intellectual control, rapid and uncontrolled association of ideas, stereotyped, symolical or grotesque association of ideas.

Tumors of the Vermiform Appendix.—Losselin de Long (Mittlg. aus d. Grenzgeb. d. Medico Chir.) says that there are on record sixty cases of carcinoma of the appendix, a very small number as compared to the frequency of inflammatory affections of the appendix. This fact alone renders the probability of an internal connection between the inflammation and the development of the carcinoma extremely improbable. There is more to be said in favor of Cohnheim's theory; for embryonic separations of epithelium are naturally very apt to occur in the genesis of the organ, especially at the base and at the tip, where the tumor is almost exclusively met with. The relatively youthful age of an average of 24 years, in which simple cancer has been noted, points in a similar direction; whereas, the much less common cylinder-cell carcinoma, which originates from the mucosa, does not appear until the average age of 52 years. The prognosis of the operation in carcimona simplex is rather favorable. Me-

tastases and recurrences have never been observed in these cases, whereas cylinder-cell carcinoma presents exactly the same behavior, in this respect, as the corresponding neoplasm in the large bowel. He contributes observations upon three cases: (1) Carcinoma simplex, (2) Lymphocytoma, (3) Pseudo diverticulum, filled with mucus, not a new formation in the true sense of the word. The small lymphocytoma, in spite of its clinically benign character, must be designated as malignant, according to its histological behavior.

Meat-Poisoning.—Lebeam in the Ztschrft. fur Aerztl. Fortbildung, divided his cases into three groups, according to the ætiological point of view. (1) Meat poisoning through the ingestion of meat from diseased animals; (2) meat poisoning through spoiled meat improperly treated along hygienic lines; (3) mept poisoning corresponding to the classical type of "botulism." The first group is produced by the so-called bacteria of enteritis, which are closely related to the para-typhoid bacillus B. of Kurth Schottmuller. The second group is referable to the Proteus bacillus, or the common colon bacillus. Both these forms of meat-poisoning are characterized by gastrointestinal symptoms, the clinical picture being dominated by manifestations on the part of the gastrointestinal tract, abdominal pain, vomiting and severe diarrhœa. These cases constitute meat intoxications of the intestinal type. In contradistinction to these cases there are others of true botulism, also known as allantiasis, or sausage poisoning, because the first observations concerned the ingestion of spoiled sausage. Botulism is characterized by severe nervous symptoms, with optic disturbances, paralysis of accommodation and diplopia in the fore-ground of the clinical picture, combined with ptosis and mydriasis. Disturbances of swallowing, paralyses of the vocal cords and paralyses of the extremities follow, and a fatal outcome is very common. These cases of botulism concern poisoning with botulinus toxin. An increase in the number of botulinus bacilli in the organism does not occur. Botulism in this respect presents a marked similarity with tetanus. The botulinus bacillus is found in any kind of spoiled meat or fish, as well as in other foods, such as vegetables, the articles appearing practically unchanged externally..

Prevention of Diphtheria.—Pecori (Gazzetta Medica di Roma) says that as a result of the introduction of antitoxin in the treatment of diphtheria it is found that although the mortality is decreased, the morbidity from the disease is not decreased. This is due to the carelessness which results from the feeling of safety that has been gained in so severe a disease. This is a distinct disadvantage, inasmuch as it is found that the persons surrounding the patient, the immunized children of the family, and the convalescent himself, are still carriers of the bacillus in a virulent form. The convalescent carries aroud in his throat for several weeks germs which are capable of infecting others. If he is allowed, as is so often the case, to mingle with the rest of the family and its visitors after a few days of isolation, the spread of the disease is much increased. One of the most frequent routes of spreading is by the school. It is found that the months in which diptheria is least frequent are those in which children do not go to school. The prevention of infection is accomplished by various measures, some general, some special to individuals, which must be combined intelligently. The measures suggested by the author are these: Isolation of the patient from the beginning of the disease and throughout convalescence, as long as cultures show the presence of the bacilli in the throat or nose. The school must be recognized as of importance as a means of spreading the disease. All pupils and teachers who live in a family in which there has been diphtheria should be excluded until a certificate can be shown stating that bacilli are no longer present in the throat of the patient, or of any member of the family. A period of at least seven weeks having elapsed, rigorous disinfection of the entire house, the school, and all places where the patient has been during the course of the disease should be carried out.

Intravenous Injections of Adrenalin in Heart Failure.—John, according to the Dublin Medical Journal, has investigated the action of intravenous injections of from ½ to 1 cc.m. of adrenalin in cases of cardiac failure and of shock, and has come to the conclusion that they will frequently restore life to moribund patients, even after all other therapeutic means have failed. He has frequently given it in the collapsed condition of pneumonia, in heart failure following lysol poisoning, in pleurisy, and in many other conditions. The effect is instantaneous. The face and the mucous membranes become blanched, the blood pressure rises, and the pulse becomes slowed. This improvement may last from two to three hours. The writer believes that the beneficial effects observed arise partly from the vaso-constrictive action of the adrenalin and partly from a direct stimulating action in the heart muscle or cardiac ganglia. He also suggests that some forms of cardiac failure may be due to the want

of sufficient suprarenal secretion in the circulation. If this is so the good results are even more readily understandable.

Treatment of Facial Paralysis Due to Division of the Facial Nerve.—March (British Medical Journal) describes two cases wherein an anastomosis had been performed to correct the facial palsy.

He contends that where the division of the nerve is recognized at the time of operation, a careful adjustment of the nerve may result in a restoration of the functional activity of the parts. Where division is not so recognized, he recommends an early attempt at an adjustment of the ends, opening the wound for this purpose. In the case where an adjustment of the ends has been attempted no second attempt should be made within three or four months.

He favors this adjustment of the nerve ends before any attempt be made to perform an anastomosis with either the hypoglossal or with the spinal accessory.

Constitutional Eczema of Infants.—Feer (Munch. med. Woch.) calls attention to chronic eczema occurring oftenest during the first few years of life and most commonly during the nursing period. In contradistinction to chronic eczema the acute form is frequently a true dermatitis; intertrigo is a true dermatitis only if co-existing with a disposition to eczema. The eczemas of older children rest oftenest upon a tuberculous base, and a positive tuberculin reaction may be obtained in almost every case. The real chronic eczema is undoubtedly a constitutional disease, but secondary dermal disturbance is quite common in their course. The two factors of importance in the development of chronic eczema are an inherited disposition and the type of nutrition; either of them may be the more important. There are two forms of chronic eczema to be found; the weeping, scale-forming eczema of the head, and the disseminated dry form. The first form is found oftenest in fat, pasty children, but even the healthiest may be affected. It begins in the scalp, spreading to cheeks and ears; it may spread to other parts of the body; there is very little itching. Overfeeding and constipation are common with these children and a spontaneous cure may be noted, when at the end of the first year a mixed diet is ordered for the child. The second form occurs almost exclusively in artificial fed infants; over-feeding is common and the patients are usually pale, thin, and flabby; chronic nutritional or intestinal disturbances are frequent. It manifests itself as discrete, dry, red, desquamating, infiltrating islands; also as papular and pustular foci. Weeping and scale formation are uncommon; part or all of the body may be involved. It is slow in development, itches, and is difficult to eradicate. Both the gouty diathesis and auto-intoxications have been blamed for this condition. Sudden deaths in children with such eczemas must be referred to "status lymphaticus" rather than to sepsis. His treatment consists of softening the scabs with oil or vasseline: this must be done gradually. The writer treats weeping surfaces with dilute solutions of aluminum acetate for several days, following it by a paste of oxide of zinc, starch, and vaselin. He bandages the hands to prevent scratching. Naphthalan is added in slowly healing cases, sulphur in the seborrhoic forms. Bismuth, zinc, or Lassa 's salve is used in dry cases. Fowler's solution internally and slight laxation are of advantage. The amount of food must be reduced. Barley water may be substituted for some of the breast feeding. A reasonable loss in weight need not be feared. Starchy food should be given in reasonable quantities to infants more than four months old; after the sixth month vegetables are allowed. Eggs and soups should be avoided under all conditions. The diet which has brought the cure should be continued for months. In underfed children cutting down of diet is not permitted; the children should be fattened.

Miscellaneous.

A New Variety of Cutaneous Discomycosis.

Foulerton, in 1890 (Brit. Jour. Dermat.), showed that conditions resembling actinomycosis might be produced by a streptothrix. Since then attention has been drawn to peculiar lesions evoked by different sporotrices, and now Ravaut and Pinoy (Ann. de Dermat. et de Syph., July, 1909, Paris) record a case with special features, apparently due to a discomyces. The patient was a man of 45, who had always lived in Paris. Six weeks before his admission to hospital, he experienced dull pains in his arms and limbs, unaccompanied by any other symptom. Soon there appeared on the leg and shoulder subcutaneous and intramuscular nodules, painful on pressure. These, at first small and hard, rapidly increased in volume, new ones showed themselves in various parts, while in a short time some suppurated and burst, discharging pus containing blood and clots. Finally other deep lesions ensued, periostitis, ostitis, and synovitis, as well as large intra-muscular and subcutaneous abscesses. Round the fistulæ so produced, the skin assumed a dark wine hue, fairly well-defined at its margin, accompanied with some thicken-

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ing, while exuberant granulations rose round the openings. In the granulations were embedded little, white, miliary bodies. Smears from the pus showed, when treated with largin, very fine bacilli, having a clear central space and colored extremities, while the grains were constituted of the same bacilli agglutinated into rosettes. No thread forms or clubs were observed in the smears, but the grains were composed at the periphery of clubs, and in the centre of very fine threads or minute bacilli. This organism proved to be a discomyces, related to that of actinomycosis, and to it the authors desire to attach the name of Discomyces Thibiergi. In the light of these and other researches, one ought, therefore, to speak now, not of actinomycosis, but of actinomycoses. The most various parasites appear capable of giving rise to actinomycotic forms. In the case in question, under full doses of iodide internally, supplemented by incisions and erasions locally, the existing lesions healed, though somewhat slowly, and the commencing ones aborted without suppurating.—Edinburgh Medical Journal.

The Presence of Sudanophile Leucocytes in Diphtheritic Infection.

Luigi Benini describes the results of blood examination in diphtheria. There is an increase of leucocytosis which intensifies with the severity of the infection. The use of antitoxin produces hypoleucocytosis after a half hour from the injection, followed by hyperleucocytosis lasting for twenty-four hours. The leucocytes contain granules that are named sudanophile, which indicate an intoxicating agent circulating in the blood and having a specific action on the blood. The author has made a study of these sudanophile granulations in the blood of patients at the Pediatric Clinic at Florence. There were ten cases of severe and twenty-nine of less severe diphtheria, and nineteen cases of laryngitis. Experiments were also made in animals. The author concludes that in diphtheria there are degenerative changes determined by the toxins of the disease, and these granulations are found in even the mononucleated leucocytes. No pus corpuscles are found. These sudanophile granules are more frequent in simple angina than in the croup cases. They are greater in number in severer cases and are an indication of the severity of the disease. They diminish on the third day of treatment and disappear as convalescence is established. They are not directly influenced by injections of antitoxin. In febrile complications they reappear, but are not found in post-diphtheritic paralysis. They are determined by the toxic action of the diphtheria toxin on the leucocytes of the blood.—Rivista di Clinica Pediatrica.

Quinine in Malaria.

In Folia Therapeutica. Ziemann treats of the mode of employment of quinine in malaria; of the numerous quinine preparations six have gained commendation: the pure alkaloid, quinine hydrochloride, quinine carbamide dichloride (quinine and urea hydrochloride), quinine bisulphate, quinine tannate, and the synthetic equinine (ethylcarbonic ester of quinine). All these must be introduced into the stomach in an easily soluble form which guarantees the quickest absorption.

The best way is to take the dose of quinine in water, to which has been added five or ten drops of hydrochloric acid. Equinine has the least unpleasant taste, the others causing repugnance. This may be avoided by swallowing the tablet or enclosing the salt in gelatin capsules, with chocolate, or with wafer paper.

Quinine is better tolerated if given during the nonfebrile period. In dealing with pernicious malaria, however, we cannot wait for this, and in fact there may not be any apyrexial period whatsoever. Nocht recommends that the dose of one gram should be divided into five parts and administered at intervals during the day.

Ziemann prefers in recent pernicious types, to inject the drug hypodermically, and for this reason selects the most soluble preparation of quinine, the carbamidated dihydrochloride (soluble in 50 per cent. water, and containing 70 per cent. quinine). When this is employed subcutaneously necrosis of the skin at the seat of injection may follow. He accordingly advises that it be injected intramuscularly.

This method has been tried in thousands of instances and has been followed by splendid success. A Ricord syringe containing 4 centimeters and a canula is boiled in a test-tube, the opening directed downward. The water is poured off, the syringe removed with a pair of sterile forceps and the canula applied. Then a sealed glass tube containing one dram of quinine dihydrochloride in 15 minims of water is broken at the apex and the contents sucked up by the canula. Next 3 cubic centimeters of sterile water are sucked up at a temperature of about 40° C. The quinine solution is then mixed by raising and depressing the syringe, the piston is pushed in till the quinine solution begins to issue from the canula, and the whole contents of the syringe introduced vertically into the middle of one of the gluteus maximus muscles, the area of injection having been previously disinfected. The mid-area between the trochanter major and the tuber ischii should be carefully avoided so as not to strike the sciatic nerve. Only very rarely does this

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give rise to a slight burning at the seat of injection, and this speedily disappears.

Quinine thus introduced acts promptly and powerfully. Ziemann has used this method even in little children. Altogether, the results have been brilliant. Relapses have been very rare, even when the drug has been given by mouth. When the latter mode of administration must be applied, he gives the quinine in a mixture containing chloroform, gum and sugar; and this would be retained when otherwise the drug would be rejected.

The administration of quinine by the rectum is liable to produce vomiting. By the skin it is too uncertain in action.

Gunshot Wound—Peculiarities.

On 9th March at the meeting of the Leipzig Medical Society Rimann showed projection-pictures of the case of a young woman who had been shot with a revolver. The fatal wound was in the right temple; but the interesting point about thecase was the fact that there was a beautifully stellate wound of the skin in the centre of the forehead. On examination of this wound it was found that the edges of the radiations were undermined, and that the subcutaneous tissues under them were blackened by the powder, although no blacking of the external surface had occurred. The projectile—a 7 mm. calibre bullet—was found lying on the bone mushroomed, so that its hollowed base was like the head of a stud, lying in a button-hole slit in the integuments. The peculiarities of this wound were due to the revolver having been held in contact with the skin, the explosion-gases having thus followed the bullet, been obstructed by it when it became mushroomed, and then taken the direction of least resistance—laterally. In the outer table of the skull three fissures were found, the inner table being intact.—Muenchener Med. Woch.

Early Diagnosis of Gastric Carcinoma.

Marini discusses the cytological examination of vomited material and of fluid obtained by washing out the stomach, and maintains that an aid may be obtained by this means in the diagnosis of suspected carcinoma ventriculi. He has himself examined the contents of the stomach in thirty-seven cases of carcinoma, and while he has only found fragments of tumor in three cases, he has been able to detect isolated tumor cells in thirty-two cases. He describes the tumor cells as consisting of flattened or cylindrical epithelium, and readily distinguishable from the normal cells of ihe œsophageal and gastric mucous membrane. The exact type of cell of course varies with the type of carcinoma present. He regards the detection of these cells as the most reliable means of making a diagnosis independent of performing an exploratory laparotomy.—Archiv. fur Verdauungskrankheit.

A Scientific Priest on the Danger of Holy Water.

The sanitary dangers lurking in "holy water" have often been referred to by medical men. They have recently been scientifically studied by a monk, Fr. Augustin Gemelli, who is himself a highly qualified medical man. He publishes his results in the *Scuola Cattolica*. Each cubic centimeter of holy water in the basins in the church of Santa Croce, Turin, taken from the surface contained 150,000 microbes, while a cubic centimeter taken from the bottom contained no less than 6,000,000 microbes. He injected this water into animals and found that it always killed them, the causes of death being tuberculosis, colitis, or diphtheria. He does not think a daily cleansing with corrosive sublimate sufficient, but recommends a new form of holy water receptacle so constructed that persons instead of dipping their fingers into it can obtain three drops of holy water by pressing a button. A vessel of this nature has been placed in the church of Vergiate, Milan. Fr. Gemelli turned his attention also to the grilles in the confessional boxes. Water which had been used for washing these only contained 25 microbes per cubic centimeter and when injected into animals only proved fatal to ten per cent. of them. —London Lancet.

Cold Affusion in Delirium Tremens.

The author describes the treatment that he uses in cases of delirium tremens. The patient is stripped naked and lies on a blanket over a waterproof sheet. A copious supply of ice-cold water is provided, and a large bath sponge dripping with the iced water is dashed violently on the face, neck, chest and body as rapidly as possible. He is then rubbed dry with a rough towel, and the process is repeated a second and a third time. The patient is now turned over, and the wet sponge is dashed on the back of the head and down the whole length of the spine two or three times, vigorous friction with a bath towel being employed between cold water applications. By the time the patient is dried and made comfortable, he will be fast asleep.—Broadbent, British Medical Journal.

Thiosinamine in Deafness.—Mollison (Guy's Hosp. Gazette) mentions five cases of deafness which were treated by means of injections of fibrolysin. Of these, two distinctly benefited; one, a girl of fifteen, improved for a while, but ceased attending, because the injections gave some pain; one was apparently unaffected, though the patient said she heard better; and the fifth case, though quite recent, seemed to be improving slightly and was still under treatment. One ampulla (2.5 c cm.) was injected into the gluteal region three times a week, the skin being first frozen with a spray of ethyl chloride, and the treatment in each case continued for some considerable time.

Rapid Method of Examination of the Stools of Nurslings and Infants; Appreciation of the Biliary, Intestinal, and Pancreatic Functions.—Triboulet (Jour. de Med. de Paris) recommends a rapid and correct method of examination of the fresh stools of infants and children, which tells us the condition of the biliary, pancreatic, and intestinal functions. The test is made by mixing a portion of the stool with distilled water and agitating it in a test-tube. There are then added eight to ten drops of a solution of sublimate in acetic acid and distilled water. The tube is set upright and kept for one-half to two hours, or, still better, for twenty-four hours. In normal infants there is produced a rose-colored fluid with a troubled portion above and a rose-colored precipitate. Such a precipitate always indicates normal function of the digestive tube and liver. But in abnormal conditions green and other shades appear instead of rose. The coloration is due to oxidation of the bile pigments. In the early life of the nursling, a normal green coloration may be obtained, but as he grows older this is never a normal reaction. The rose color is that of hydrobilirubin. The nursling at the breast without fever gives a green to a rose reaction. An older infant gives a vivid green precipitate with a rose-colored troubled liquid when he has plenty of bilirubin in the intestine, or when the intestine carries out energetic oxidation, or when it is insufficient for the reduction of hydrobilirubin. A light green or yellow to gray color indicates insufficiency or poor quality of bile or that the intestine is altered in its oxidizing and reducing cellular elements. A white deposit indicates absence of bile or absence of intestinal function. These latter reactions indicate a grave lesion of the digestive tract. A change of the reaction indicates a prognosis for the recovery or death of the subject. A change of feeding may be indicated and may cause an immediate change in the reactions. Another element aids in diagnosis and prognosis, the troubled condition of the liquid or its clearness. The floating particles consist of albuminoid and fatty substances and myriads of bacteria; this indicates normal intestinal and pancreatic condition, while in atrophic infants a clear liquid is seen indicating a grave loss of function. In febrile cases absence of pigment from the stools is a grave symptom. A green reaction may indicate a catarrh or irritation of the intestine. Its persistence is unfavorable, while the return of a normal rose is favorable. Thus this reaction is of value in diagnosis and prognosis, and in giving indications for treatment.

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The Etiology and Treatment of Hyperpyrexia in Children.—Burnet (British Journal of Children's Diseases) mentions two cases. The first was in a child aged 7 years, with tuberculous family history. The temperature reached 107° F., and was effectively treated by pouring cold water over the head and neck from a jug. The child was well next day and no cause was discovered. The second was a boy aged 8½ years, suffering from acute rheumatism, who was being treated with 10-grain doses of sodium salicylate. The temperature rose to 107.2° F. The same treatment was adopted, followed by the application to the head of sponges wrung out of iced water.

The patient made an excellent recovery. The hyperpyrexia in this case was ascribed to the development of pericarditis, though Dr. Burnet thought that the salicylates might have something to do with it, especially as the high temperature was accompanied by a maniacal state. He was doubtful as to the safety of applying an ice-bag to the chest in such cases, for this might produce a great deal of shock and perhaps collapse. He recommended tepid sponging in the first instance, followed by the application of cold to the head by sponging or ice bag. Should these measures fail, the cold douche over the head and neck should be used, the head being held over a basin or bath.

Government Appoints a Commission to Study Pellagra.

A special commission of scientists was appointed on November 4th by the Secretary of the Treasury to make an examination into the causes of pellagra and report on official action necessary to arrest the progress of the disease. The members of the board will visit those States where the disease is prevalent, and co-operate with boards of health and other medical organizations in devising ways and means for preventing the further spread of pellagra. The commission is composed of the following members: Passed Assistant Surgeon John S. Anderson, director of the Hygienic Laboratory, chairman: M. J. Rosenau, of the Public Health and Marine Hospital Service, Dr. Reid Hunt, Chief of the Division of Pharmacology, Hygienic Laboratory; Passed Assistant Surgeon Charles H. Lavinder, Secretary of the Commission; Dr. William A. White, Superintendent of the Government Hospital for the Insane; Dr. Nicholas Achuccaro, Specialist in Nervous Pathology, Government Hospital for the Insane, and Passed Assistant Surgeon J. D. Long.

Blood Cultures in Febrile Diseases.

Kiralyfi reports an interesting series of observations on 80 cases in which blood cultures were made. Sixty of these cases were acute infectious diseases, while the other twenty were cases of various kinds during the course of which fever of obscure origin occurred. In these twenty, cultures were negative in all but two, the fever being due to other causes than bacterial toxins. Inasmuch as the occurrence of bacteriemia in the course of chronic diseases makes the prognosis graver, Kiralyfi thinks such negative findings may often be of value. Of the cases of acute infectious disease, 54% gave positive cultures. Of these, the cases of typhoid fever, septicemia, and the group comprising endocarditis, chorea and infectious arthritis were of particular interest. Of thirteen cases of typhoid ten gave positive cultures. Of the other three, two were in a late stage, where positive results were not to be expected, and one gave no Widal reaction, and the diagnosis was uncertain. Several gave positive cultures some days before the Widal reaction appeared. One case giving typical clinical appearances of typhoid was recognized as pneumonia by the finding of the pneumococcus in the cultures; 80% of the cases of septicemia gave positive cultures of the pus organisms or Fraenkel's pneumococcus, and these cultures were of some value in differentiating from typhoid. Of special interest in the endocarditis and arthritis group was the occurrence in several cases of the pseudo-diphtheria bacillus.

Aside from the values of the blood cultures in differential diagnosis, Kiralyfi thinks that the frequency of positive results in comparatively mild cases shows bacteriemia to be much less ominous than was formerly supposed.—Zeitschr. fur. Klin.

"Doctors Must Be Good."

Under this caption the St. Joseph (Mo.) Gazette comments editorially upon the recent action of the State Board of Health in suspending the license of a physician who had prostituted his profession privileges by peddling whiskey prescriptions indiscriminately. The offense was a flagrant one, in so far as the physician had repeatedly received warning of his misdemeanors by arrests and fines on the part of the local authorities; but despite the punishments, his record shows no diminution in the number of prescriptions for whiskey which he continued to write, as no doubt the business was profitable and the fines insignificant, since he issued as many as 2,000 whiskey prescriptions in one month. The writer of the editorial referred to, exhibits an illuminating perception of the responsibility of physicians and the limitation of the privileges conferred by license to practice medicine. The clarity of his utterances comes as an encouraging variation from the fuliginous dissertations usually offered in newspaper comments anent medical practice and its relation to the public. The Board suspended the physician's license for a period of fifteen years, which prompts the Gazette to say:

"During that time it is hoped the doctor will have ample time to reflect upon the value of a physician's license. The action of the State board in this case may seem a little drastic, but it is not. The offender

was a notorious one. He not only violated the law but did it openly and persistently, in the very face of frequent warnings. Indeed, he had been arrested, convicted and fined by the criminal authorities of the county in which he resided, but without permanent results to his betterment. The board was forced to do something and it acted wisely in letting it be understood that it stands for the rigid enforcement of the laws."

It now remains for the local authorities of Boone county, in which county the offense was committed, and for the Boone County Medical Society, to see to it that this offender against the laws of the State and the tenets of the medical profession, shall not violate the restrictions placed upon him, during the period of suspension of his license to practice, by any condonation on their part should an attempt be made by him to engage in the practice of his profession.—Missouri State Medical Journal.

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Hypernephroma.—W. Trotter, in the London Lancet, finds 75 cent. of cases of tumors of the kidney to be hypernephromata; the remainder are made up mostly of sarcomata, to a much less extent of equamous epitheliomata of the pelvis, while a true carcinoma of the kidney apart from hypernephroma is a very great rarity, or possibly does not exist. The kidney tumors of children are practically all sarcomatar there is but one case of hypernephroma in an infant. Malignant disease of the kidney affects earliest childhood and middle age, but rarely young adults and the aged. Hence hypernephroma is the common kidney tumor of adults; conversely, any given tumor in an adult is much more likely to be one of this type than anything else. This is probably the only absolutely etiological factor bearing on the disease. There is the history of injury, but the conditions here render this history suspicious. The tumor may be present for a long time before it is discovered, so that injury may come to have its apparent importance merely by calling attention to the part; moreover, an injury may induce a hemorrhage from a kidney the seat of a tumor when it would not do so from a sound one. Once the diagnosis is established the treatment is clear; such a kidney must be removed. A local resection when the tumor is small will not do; nothing less than total nephrectomy is justifiable. In the absence of secondary growths mere size of the tumor is no contraindication unless there is obvious involment of other abdominal organs. Although tumors of the colon suitably placed frequently involve the kidney, tumors of the latter rarely involve the colon. In favorable cases there is always an excellent probability of very prolonged immunity—a period of ten years' freedom from recurrence is not unknown; it is probable, however, that unless operation can be done a good deal earlier than at present permanent cures are likely to be rare.

Transplantation of Organs by Vessel Suture.—(Archiv. f. Klin. Chic.) has successfully transplanted the kidneys and thyroid glands of animals by means of vessel suture.

The extirpated kidneys were transplanted with their vessels, the vessels being sutured to the vessels in the same animal or another animal (dogs being used), the ureter led to the surface through the skin. The organ secreted urine abundantly for several days. The animals died, however, in a short time (at the latest ten days) of ascending pyelonephritis. The writer, therefore, planted the kidney vessels in the iliac vessels, and planted the ureter in the bladder. The animal died three weeks after the operation, of chronic, localized, suppurative peritonitis. The transplanted kidney was found macroscopically and microscopically unchanged.

Further research dealt with transplantation of the thyroid gland. Both lobes of the thyroid gland of a dog were extirpated; the left lobe was then implanted on the right side of the neck by vessel suture. After fifty days examination showed that the reimplanted thyroid obtained circulation from surrounding tissue, and was macrascopicall and microscopically normal.

He has also successfully transplanted thyroid gland from other animals, always from the same species, however.

Election of Officers.

At a recent meeting of the Medical Association of the Southwest held in San Antonio, Texas, the following officers were elected: President, Dr. H. G. Moody, San Antonio; vice-presidents: Missouri, Dr. Howard Hill, Kansas City; Kansas, Dr. C. E. Bowers, Wichita; Oklahoma, Dr. D. A. Meyers, Lawton; Arkansas, Dr. A. J. Vance, Harrison; secretary-treasurer, Dr. F. H. Clark, El Reno; executive committee: Missouri, Dr. S. G. Burnett, Kansas City; Kansas, Dr. J. F. Gsell, Wichita; Oklahoma, Dr. E. S. Laine, Oklahoma City; Arkansas, Dr. J. A. Foltz, Fort Smith; Texas, Dr. E. H. Cary, Dallas.

The Southern Surgical and Gynecological Association will hold its twenty-second annual meeting at the Hot Springs Hotel, Hot Springs, Va., December 14, 15, and 16, 1909. The president of the association is Dr. Stuart McGuire, of Richmond, Va.; the secretary is Dr. W. D. Haggard of Nashville, Tenn., and the chairman of the committee of arrangements is Dr. Lewis C. Roscher of Richmond, Va.

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The course in SURGICAL PATHOLOGY will consist of demonstrations in Dr. Horsley's laboratory of gross specimens and microscopical sections, together with histories of the cases from which the specimen were obtained and a description of the operation and the results.

In EXPERIMENTAL SURGERY operations will be performed upon dogs. For this course the class will meet twice a week and each student will have frequent opportunity to operate. The operations will be performed under general anæsthesia and will embrace the ligation of arteries, the making of abdominal incisions, suturing intestinal wounds, trephining, resection of ribs, amputations, etc.

The classes will be limited to four students, and will be made up in the order of application. The course will last four weeks, and instruction be given each day except Sunday, in either clinical or laboratory work. The fee for the entire course in surgery is $25.00.

Dr. W. A. Shepherd, Director of the Microscopical Laboratories at the Medical College of Virginia and Clinical Pathologist to Memorial Hospital, will give a course in CLINICAL DIAGNOSIS to be conducted in the laboratory of the Memorial Hospital. Instruction will include examinations of blood, feces, sputum, gastric contents, etc., and will cover a period of four weeks. The hours will be so arranged as not to conflict with the course on surgery. Fee $25.00.

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Poisoning by Atoxyl.

A fatal case of Atoxyl poisoning occurred in Breslau in which a butcher, aged 29, who was being treated for syphilis had intramuscular injections of Hydrag-Salicyl and later Atoxyl of which the patient received 0.6 Grammes on the 21st, 24th, 26th and 28th December. On the 29th December he was all right. But on the 30th, he complained of nausea and malaise and later had an epileptiform attack with complete loss of consciousness, marked trismus and intense cyanosis. Blood letting, saline injection and oxygen inhalation were resorted to, but the patient died after the third seizure. A the autopsy œdema of the lungs was found to have been the cause of death, the organs the usual signs of acute arsenical poisoning. This case clearly shows the necessity of keeping patients receiving Atoxyl injections under observations and the medicine stopped at once on the appearance of any untoward symptoms. Fresh solutions of Atoxyl should only be used.—Indian Medical Gazette.

Pernicious Anaemia.—Taylor, in The London Practitioner, reports 10 cases of this disease and makes the following observations:

It is clear that the symptoms of pernicious anæmia may be many and varied; in one case a gastro-intestinal disorder may be simulated; in another the patient may apparently have a nervous disorder, or again there may be complaints of nothing except weakness, loss of breath and œdema, which might be due merely to chlorosis.

By the examination of the blood alone can the diagnosis be at once settled, and, for the sake of cases of pernicious anæmia, the author would urge that more frequent routine blood examinations should be undertaken; many, of course, would show nothing abnormal, but, at any rate, as a result, many more patients with pernicious anæmia would have their disease recognized earlier, and appropriate treatment started, and possibly harmful treatment avoided, for if the case were thought to be chlorosis, and iron administered, it would be one of the worst possible things for pernicious anæmia.

The recognition of idiopathic pernicious anæmia, in any case with obscure symptoms, rests on the following blood changes —reduction in the number of red corpuscles, with a high color index, and leukopenia. The presence of megalocytes in large numbers, and of normo and megaloblasts. Among the white corpuscles a lymphocytosis, usually of over 40 per cent., and a not greater percentage than four of eosinophils.

The Complication of Typhoid Fever with Gangrene of the Extremities.—Biron (Wiener Klin. Wchschrft). The case reported by the author concerned a young woman, 21 years of age, who was admitted to the Obuchow Hospital for Women, in St. Petersburg, suffering from an attack of typhoid fever. In the beginning of the third week of an illness of moderate severity, when the temperature was already returning to normal, there appeared an unfavorable complication in the shape of gangrene of the right foot and leg. This gangrene was preceded by a stage of severe pain in the extremity, the cause of which was not very clear. One and a half days later appeared manifestations of well-marked local anæmia, followed by a purplish discoloration and loss of sensation, etc., in the tissues, pointing to the true character of the disease. In the first or prodromal stage, which lasted about one and a half days, the pains in the extremity were entirely spontaneous, without depending upon movements, pressure and so forth. In the second or anæmic stage, the pains reached a high degree of severity, so as to prevent the patient altogether from moving the extremity; the gentlest contact of the soft parts gave rise to intolerable pain. In the third stage, when the gangrenous process was already well under way, complete anæsthesia appeared in the gangrenous portions, together with a small hyperæsthetic area at the boundary of the healthy tissues. This was the point of origin of the pains, which appeared from time to time in periodical attacks. Finally, in the fourth stage, when the gangrenous tissues were already completely mummified, it again became possible to determine pain by means of pressure. This state of affairs caused the patient herself and her friends to hope that the gangrenous portions of the extremity would recover. The color of the skin coverings of the extremity likewise varied considerably; it was deathly white during the first few days, then took a marble tint, changing to a dark purple, and finally to a bright red, in the stage of mummification (changes of the hæmoglobin?). Unfortunately, the patient could not be kept under observation until the end of the disease. The conservative treatment (rest, warmth, analgesic remedies) adopted in the hospital did not satisfy the friends of the patient, who desired more energetic measures, such as massage, and the patient was removed from the hospital against the advice of the physicians The outcome of the case is unknown.

Upon the basis of his personal observation as well as the statements in the literature, the author believes himself justified in the following conclusions:

1. The immediate cause of gangrene of the extremities in typhoid fever is the obstruction of the afferent vessels (arteries), sometimes of the efferent vessels (veins). In certain cases the interruption of the circulation may be due to causes of a functional character (spasm of the vessels)

Treatment for Intestinal Worms.—Savill in The London Practitioner, points out that intestinal worms may give rise to no symptoms at all. These worms are most frequently met with in children, and may remain undiscovered until they are found in the stools. The symptoms are very indefinite, and consist of vague and persistent, though often paroxysmal, pains in the abdomen; capricious and sometimes ravenous appetite, in spite of which the child becomes thin and sallow. grinding of the teeth at night, picking of the nose, and other reflax phenomena; irregularity of the bowels, or diarrhœa; threadworms produce intense itching of the anus, and consequently

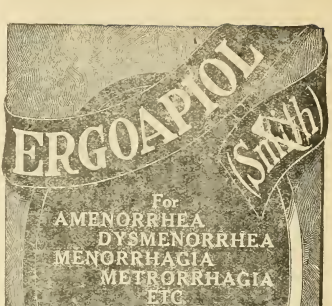
fidgetiness, especially at night. They may wander forwards and cause vulvitis.

The treatment differs for the different worms. For threadworms the best treatment consists of quassia injections. After an aperient, one ounce of powdered quassia to a pint of boiling water is, when cold, injected into the bowel, and retained as long as possible. Common salt injections of the same strength may be used. The worms are destroyed with two or three such injections.

Santonin (one grain) in a powder with calomel is very efficacious; it should be given on alternate days for three doses, followed by castor oil. Where the worm has its habitat high up in the intestine (as the tapeworm) treatment is conducted in three stages.

(1) In order to starve the parasite by keeping the alimentary canal as empty as possible, the patient should have no food after midday, and at night or next morning a purgative must be taken. This leaves the worm uncovered, and thus readily acted upon by (2) the anthelmintic, which is given about an hour after purgation. The chief anthelmintic is extract of male fern. Some recommend thirty minims of spirit of turpentine to be given with this; others give kousso (four drachms) or pelletierine (two grains of the alkaloid); (3) two hours later give calomel with saline aperient to eject the worm from the body. The stools must be examined to see that the head is passed. If only segments are passed, the worm will grow again, and the same treatment will have to be repeated within three months. For the round worm the specific remedy is santonin, given in two grain doses to a child of three and upwards; for an adult five grains are given.

Hernia of the Diaphragm, Traumatic and Acquired.—Little-Jones (Liverpool Medico-Chirurgical Journal) reports two interesting cases. The first was that of a young man who fell down a flight of stairs and shattered a picture glass. He sustained a wound about 2½ inches long in his seventh left intercostal space, through which a small piece of omentum was protruding. The author removed the eighth rib, cleaned out the pleural cavity of a large amount of blood and glass and found a rent 1½ inches in length in the diaphragm about half an inch from the pericardium, through which omentum was protruding. The omentum was ligated and removed and the rent in the diaphragm was sutured. Despite a rather severe attack of pneumonia, the patient recovered and is today perfectly well. The second case occurred in a child of eight, who gave a history of repeated attacks of colic consequent to a fall which occurred eight months before. An attack of obstruction supervening, the patient was operated upon and it was found that the omentum and parts of the transverse and descending colon had passed into the left pleural cavity through a hole the size of a shilling. Great difficulty was met with in attempting to reduce the contents, but this was finally accomplished when the negative pressure in the pleural cavity was released by puncturing the diaphragm with a probe director. Nevertheless a portion of the omentum was found densely adherent and the author contented himself with closing the opening in the diaphragm with the prolapsed omentum. The patient seemed to do well for two days and then died from causes not discoverable at the autopsy.



A New Finished Stock Building for the Lilly Laboratories.

Eli Lilly & Company have under way a new stock building. The excavations are complete and much of the foundation is in. The location of the building is immediately east of the front section of the original plant, with which it will be connected by subway and enclosed passages. The building will be 70x180 feet, consisting of a sub-

basement, basement and two stories, giving floor space of about 4400 square feet or a little more than one acre. The sub-basement and basement will be of re-enforced concrete. The superstructure will be of brick with stone trimmings. The building above the ground will be massive, of slow burning construction with complete sprinkling system. The sub-basement is designed for a storage for drugs which are ground green and packed in alcohol. The other floors will be occupied with finished stock.

The new building will provide the Lilly Laboratories with one of the finest stock buildings to be found anywhere, and it is imperatively needed to take care of the increased demand for Red Lilly Pharmaceuticals.

Present Position of the Neuron Theory Doctrine in Relation to Neuropathology. —Mott, in the British Medical Journal, says that a neuron is a nerve cell, and all its processes, including protoplasmic processes or dendrons and the axis cylinder process with its cone of origin, its collaterals or side-branches, and its terminal arborization. The neuron thory is that the nervous system consists of innumerable such anatomically independent nervous units in contiguity but not continuiiy. The author believes that the trophic and genetic independence of the neurons has been established. The question arises how are they connected with one another? The method of Golgi appeared to show that the neurons are arranged in systems, and numerous experiments were made te show that the dendrites exercised ameboid functions and little buds or gemmules on the processes of these cells were supposed to appear and disappear owing to the contractility of the protoplasm, thus leading to varying degrees of contact influence of one neuron upon another. In the lower orders of life there is a fibrillary continuity through several ganglion cells. As we rise in the scale of life it becomes increasingly difficult to demonstrate such a continuity though it would have certain functional advantages, did it exist. Are the number of fibers in the pyramids of the medulla equal to the sum of all the fibers in the anterior roots? Clearly the fibrils of the Betz psychomotor cells must be connected with a number of spinal motor neurons forming the common final patch for a multitude of different voluntary muscular activities. Moreover we know that there is not a direct connection between the upper cerebral neurons and the lower spinal motor neurons for intercalary neurons with axons which do not leave the gray matter intervene and the terminal arborization of sensory afferent neurons, cerebral, mesencephalic, and bulbar efferent neurons combine with spinal association neurons, through the intercalary neurons, in augmenting and inhibiting the outflow of energy of the spinal motor neurons whereby the most varied, refined, and complex muscular reactions in adaptation to environment are effected. The nervous energy is expended in the gray matter of the brain and spinal cord. Other points referred to by the authnor are the significance of the nodes of Ranvier, theories in reference to the functions of the interfibrillary chromophilous substance of the ganglion cell and the dendrons. Is this chromophilous substance the source of the energy, and if so, is it used at the site of its formation or is this substance, which in the dead cell corresponds to the Nissl granules, a store of energy-producing substance in the latent state analagous to the preferment of the sweat glands, a substance which is transformed into the active energy-producing substance at the terminal aborization of the neurons? In general the author regards the neuron theory as resting on a surer basis than ever before.

Parathyroid Findings in Galvanic Hyperirritability of Children.—Yanase (Wiener Klin. Wchschrft) says that anatomical examinations of the parathyroids were performed in 89 cases, the most common pathological change being found to consist in hæmorrhages into the glands. These hæmorrhages are acquired at the beginning of post-fœtal life, perhaps during birth, and cannot as a rule be demonstrated after the first year. Healing takes place in such a way that the extravasate first becomes encapsulated, and is then gradually removed by phagocytes. Traces of iron-containing blood pigment persist in the connective tissue, where the author was enabled to demonstrate them up to the fifth year of life. Among 50 children who were submitted to electrical examination only 13 presented a normal behavior of the irritability, and in none of these cases could a parathyroid hæmorrhage be demonstrated anatomically. Among 22 cases with anode hyper-irritability 12 cases, or 54 per cent., presented these hemorrhages, including all those children who had died within the first year (nine cases). In the cases of Kathode hyper-irritability (13 children), hæmorrhages existed in eight cases, all the negative cases being over one year of age. Two children who had suffered from convulsions likewise presented parathyroid hæmorrhages. The author interprets his findings according to the modern view, which claims that the parathyroid glands neutralize a poison formed in the normal metabolism.

Malignant Syphilis.—Rost (Dermatolog. Zeitschr.) describes six cases of malignant syphilis and then discusses the clinical features and treatment of the disease. In one of the cases an ulcer of the throat produced a fatal hæmorrhage through arrosion of the superior thyroid artery. In three cases it was impossible to demonstrate the spirochæta in the lesions of the skin and mucous membranes. This agrees with Hoffmann's experience that in typical ulcerations of malignant syphilis the spirochæta either cannot be found or at least is present in very small numbers. In one case the glands were scarcely able to be felt, agreeing with claims of some authors that in malignant syphilis glandular swelling is markedly slight. In three cases there were joint manifestations, involving in one case nearly all the joints and lasting for years. The changes appeared to affect the capsule of the joints, and no great disturbance of function was noted.

Brain symptoms, such as headache, depression, sleeplessness, deafness, numbness, etc., were present in two cases. These manifestations the writer considers to be due not to destructive processes in the brain, but to the result of action of toxines.

Lumbar puncture, made during severe cerebral symptoms in one case, showed that the pressure in the brain was not increased, and that the cerebrospinal fluid contained neither leucocytes, spirochætæ nor bacteria. If the brain symptoms had been due to lesions instead of toxæmia, the cerebrospinal fluid, the writer thinks, would have shown some pathological change.

For the local treatment of ulcerating syphilis the writer advises warm compresses of a 1 per cent. solution of bichloride of mercury. Bier's hyperæmic treatment also is to be recommended, excellent results being had in one case from this method. The opinion that mercury fails to cure or even actually aggravates malignant syphilis is not subscribed to by the writer. He considers the choice of the mercurial preparation and the length of time for its employment to be a matter of great importance. The soluble preparations are not very powerful. The "Hirsch injection" and "Hydrargyrum colloidale" failed to give good results. Large doses of unguentum cinereum are very efficacious when the condition of the skin admits of their employment. The insoluble preparations are to be recommended above all others. The salicylate of mercury is especially useful in the beginning of the treatment to ascertain the patient's reaction to the drug and later for after-treatment. Calomel injections are, however, the best, and are productive of excellent results in the severest cases.

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Continuous Catheterism of Ureters in Bladder Lesions.—Cardenal of Madrid (Zentralb. fur Chir.) advocates the practice of continuous catheterism of both ureters as a means of keeping the bladder dry in certain cases of suprapubic cystotomy. Such practice, the author states, has been found very useful in his own surgical work, and he believes that it can be applied without any risk of setting up ascending septic infection. Ureteral catheterism has been carried out by Albarran in both the preventive and the curative treatment of renal fistulæ following nephrostomy, but the value of this procedure has not hitherto, it is held, been tested in the operative surgery of the bladder. The author, after he has opened the bladder above the pubes for the extraction of a calculus or for the excision of a tumor or an enlarged prostate, introduces a No. 9 or 10 Charriere into each ureter and then passes the other ends of both catheters along the urethra. The retention of the catheters for several days after the operation serves, by keeping the vesical cavity free from urine, to improve the results of suprapubic cystotomy. Troublesome post-operative hæmorrhage may be more effectually controlled by packing the vesical cavity with compresses that remain dry and firm, and if the flow of urine through the

suprapubic wound be suppressed the duration of the after-treatment will very probably be shortened. The abdominal wound is closed or kept open, according to the nature of the case, and the patient when able to take fluids should be treated by repeated doses of some urinary antiseptic such as urotropin, helmitol or vesipyrin. The permeability of the catheters must be carefully tested from time to time by the injection of small quantities of a 4 per cent. solution of boric acid or a 1 per cent. solution of nitrate of silver. If, as will be indicated by the arrest of the flow of urine, and by feelings of discomfort and pain in the region of the corresponding kidney, either catheter becomes blocked, this, it is stated, can be readily replaced by a fresh one guided by a long mandrel, in accordance with the instruction of Albarran. On the fourth or fifth day, if no complications have occurred, the compresses are removed from the bladder and the operation wounds closed by sutures. After another interval of one or two days the ureteral catheters are removed and the bladder is drained by a retained urethral catheter. The author has had occasion to prolong ureteral catheterism over nine days, but neither in this clinical experience nor in experiments on animals, in which the catheters were retained for 16 days, were any complications observed. The practice of continuous ureteral catheterism may be capable, the author suggests, of giving excellent results in the surgical treatment of vesical and of fresh vesico-vaginal fistulæ.—British Medical Journal.

Tuberculosis of the Joints.—Vogel (Deutsche Zeitschrift fur Chirurgie) upon observations in 349 cases of tuberculosis of the joints, presents some interesting statistical data. In the first two decades of life the disease involved the hip or knee joint in the vast majority of instances. Later this predominance is much less marked. Hereditary predisposition is present in 55 per cent. of the cases. Regarding treatment, tuberculin proved of no value. Good results were obtained with iodoform. Great caution is demanded in the prognosis, since even after years of apparent cure a late recurrence may ensue, particularly after a trauma. The special treatment of the different joints may be summarized as follows: In coxitis: Modified extension, followed by fixation, in connection with intra-articular injections of iodoform glycerin; in case of failure of conservative methods, arthrectomy or resection is indicated, with preservation of the femoral head if possible. It is preferable to let the joint heal in a pathological position, and later remove the deformity by osteotomy, than to subject the patient for years to extension apparatus. Tuberculosis of the knee-joint (110 cases) was generally treated by conservative methods: Extension, fixation, iodoform injections. In cases of obstinate recurring contractures resection is to be recommended, with ankylosis in the extended position. This operation was particularly done in adults. Thirty-seven cases were treated solely by hyperemia. In tuberculosis of the ankle joint extensive use was made of hyperemia (17 cases with 13 cures). Of 11 cases treated with iodoform-glycerin injection, all were cured, and of 15 subjected to resection, 14 were cured. The functional results after hyperemia treatment were particularly good. Of tuberculosis of the elbow-joint, there were 28 cases, of which 5 were treated with iodoform with 4 cures, and 9 by resection with 2 recurrences and 2 deaths; in 4 bony ankylosis ensued; in 2 only slight mobility was obtained, while in 2 the joint was freely movable. In 6 cases in which hyperemia was resorted to 3 had moderate and 3 excellent mobility. Of tuberculosis of the wrist, 34 cases were treated—14 with iodoform injections, with good results in 8 and subsequent resection in 6. Of 12 cases of resection 9 were cured. He is especially predisposed in favor of Bier's method of hyperemia in the treatment of tubercular arthritis, and from his results concludes that in the knee-joint the percentage of cures of hyperemia is about equal to that of the iodoform treatment, while the functional result is decidedly better. As regards the elbow, ankle and wrist, all the cases treated by this method were cured, and here also the functional results were more favorable than from any other method.

Scopolamin-Morphin in Labor.—Croom (Journal of Obstetrics and Gynecology of the British Empire) reports his experience with scopolamin-morphin narcosis in sixty-two cases of labor. Various doses were used. With one-four-hundredth grain of scopolamin and one-sixth morphin, the results were uneven and unsatisfactory, although the pain was diminished. With one-two hundredth grain scopolamin and one-sixth morphin he had better results, but his best results were obtained by using one-one-hundredth grain scopolamin and one-sixth grain morphin. With this latter the painfulness of the contractions was markedly lessened, and in some cases entirely abolished. The patients slept soundly in the intervals between the pains and in many cases for an hour or two after the completion of labor. In only two cases was a thorough resuscitation of the child neces-

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sary, and none were lost. In fully one-half of the cases only one injection was necessary. If repetition was necessary his experience shows that only the scopolamin should be injected the second time. The drug was given mainly in the second stage and the effects were, (1) soporific, (2) narcosis and anesthesia, and (3) amnesia, the remembrance of suffering being abolished. In two cases forceps were applied after two injections, and the patient delivered without suffering. In a few cases where the drug was given during the first stage the os dilated very rapidly, although the patient was very sleepy and just conscious. Chloroform was given in ten cases. Of these, four were forceps cases, in two it was given to pass perineal stitches, on one version was performed, one was a breech case in a flat pelvis, in one there was extreme pain at the end of the second stage, and in one it was necessary because the patient became extremely noisy under the influence of the drugs.

There were no bad effects in heart, respiration, or pulse. The only untoward result is that the child is born sleepy and does not breathe well or cry, but in all cases the ordinary methods of reviving are sufficient. There is perhaps a slight tendency to postpartum hemorrhage. Patients vary considerable in their susceptibility to the drug.

The cases most suited for this form of treatment are primiparæ of highly nervous temperament. The drug can be given earlier in these cases than chloroform. Whenever anything in the nature of operative interference or manipulation is necessary, it is distinctly desirable to give chloroform in the ordinary way. The drug does not seem to hasten or retard labor. It should not be given to patients with irregular and feeble pains, and in patients physically weak and unfit it should be given with caution.

On the whole the writer is of the opinion that in scopolamin-morphin narcosis we have an efficient means of controlling the pain of labor, and that it is practically safe when ordinary precautions are taken.

Treatment of Inoperable Carcinoma of the Uterus with Acetone. — Gellhorn (Munchener medicinsche Wochenschrift) states that after experimenting for a year and a half he has found in acetone a substance which meets the demand for something to control the discharge, the oder, and the hemorrhage in inoperable carcinoma of the uterus. The fact that acetone quickly hardens tissues for microscopic sections led the author to use in cases of carcinoma of the uterus. The technique is

as follows: In the first place the ulcerated surface is thoroughly curetted. The resulting wound cavity is then carefully dried, and one to two tablespoonfuls of pure acetone is poured into the wound through a cylindrical speculum, with the pelvis elevated and kept in this position for fifteen to thirty minutes. Then a narrow strip of gauze is packed into the wound cavity. The patient is then put into the horizontal position, the speculum withdrawn, the lower part of the vagina and the vulva washed out with sterile water and dried. In twenty-four hours the gauze is drawn out, and in two or three days the patient leaves her bed. In five days another treatment is carried out. The pelvis is raised, a cylindrical speculum put in and filled with acetone, and the patient kept in position for half an hour.

The treatment is painless, hence anesthesia is unnecessary, but the vulva and perineum must be protected from the fluid. At the beginning this treatment is repeated three times a week. Gradually the interval between treatments can be lengthened according to the results. If the patient agrees to it, the currettement may be repeated every one or two months. On this point it has been observed that the subsequent currettements are much less bloody and only a small amount of necrotic tissue comes away; they can often be carried out without an anesthetic. After a few days a diminution of the bad odor is clearly distinguishable; the discharge gradually and completely disappears, and at the same time the fetor. Hemorrhage becomes less or entirely disappears. After two or three weeks the crater almost without exception becomes smaller and its walls become smooth and firm. On account of the absence of bleeding and discharge the general condition of the patient becomes improved.

One apparent cure of a well-marked case of cervical cancer is reported in detail. About a dozen cases have been treated in this way, but with the exception noted there was no permanent improvement, although the lives of the patients were prolonged.

The Surgical Treatment of Epidemic Meningitis.—Radmann (Mittlg. aus d. Greuzgeb. d. Med. u Chir.) says that surgical measures, in a general way, are not promising in the management of epidemic meningitis, even for theoretical reasons, since the condition is not a local suppuration, the clinical picture being governed by the general infection. Against the latter the local interference with the inflammatory products in the meninges is powerless. This view is supported by statistics. One-third of the patients recover without surgical surgical treatment, whereas the operative cases hardly reach a similar percentage. The mortality was found to be lowest in those hospitals where no surgical interventions were performed.

There is one exception, consisting in the hydrocephalus of certain chronic cases. The removal of this hydrocephalic complication would appear to be advisable, and the author for this purpose performed drainage of the two lateral ventricles in two cases, and further recommends simultaneous drainage of the fourth ventricle by opening the atlanta-occipital ligament. The danger of this drainage consists in secondary infection during the after-treatment. In order to guard against this risk, the author employed for drainage purposes small silver-wire frameworks, 4 cm. in length, which held parallel threads of cotton wick. By means of the successive pulling out of these threads it was possible to re-establish the drainage, after an obstruction had resulted, with a favorable influence upon the outcome.

The Therapeutic Use of Sulphur.—Riecke (Dtsch. Med. Wchschrft.) says that the observation to the effect that the sulphur preparations are often of very unequal efficiency is referable to the more or less finely distributed form of the sulphur in the preparation employed. In the author's experience, a constant and uniform effect was obtained by means of a 30 per cent. sulphur ointment, prepared by rubbing up a quantity of still moist, newly precipitated sulphur, with an ointment vehicle (pasta sulfuris pultiformis). The employment of this sulphur paste was followed by favorable results in cases of scabies, acne vulgaris, seborrhœa of the scalp, pityriasis versicolor, herpes tonsurans, and all forms of seborrhœic eczema. Certain cases of chronic eczema as well as fresh efflorescences of psoriasis were likewise favorably influenced. The preparation was painted on the parts two or three times daily, or it was rubbed into the affected skin segments.

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Prof. Samuel P. Sadtler, Ph. D., LL.D., and his son, Samuel S. Sadtler, S. B., state: We verified the composition of a-s-phen qualitatively and quantitatively, which clearly identified it and established its proximate composition, and found it to be a definite synthetic compound—acetyl-salicyl phenetidin, whose formula is C_6H_4 (OC_2H_3O) $CO.NH.C_6H_4$ (OC_2H_5) or $C_{17}H_{17}NO_4$. This composition was established by Anschutz and Bertram (*Berichte der Chem. Gesell.* 37, p. 3975)."

Professor Dreser (*Berichte der Deutschen Gesell.*, Vol. 37, p. 3076), states: "In the matter of reducing temperature the anilides work better than the phenetides; but even in small doses they develop quite early the undesirable change of oxyhemoglobin into methahemoglobin, which appear as cyanosis. The phenetidin product, substituted with acetyl-salicylic acid (a-s-phen or thermol), proved inactive even in large doses (0.4 grams)"—where there was no temperature.

Professors Anschutz and Bertram, in the same publication, state: "The firmness with which the acetyl group is confined into this substance is to be noted."

Dr. W. D. Hamaker, secretary of the Pennsylvania Medical Examining Board, states: "With a-s phen I have been able to reduce the time of treatment of typhoid fever one-half—except in very rare cases—with entire safety to the circulation and respiration. In the future I shall treat pneumonia with it."

Dr. Eugene B. Glenn (Surgeon with rank of Major, National Guard of North Carolina): "Am using a-s-phen for the removal of fever in my tuberculosis cases; and without any signs of sweating as the result of the use of the medicine.

Dr. Henry Beates, Jr., president of the Pennsylvania Medical Examination Board, states: "I use a-s-phen (thermol) in those types of infectious disease like typhoid fever, in those cases where the purin bases are evolved in excess like rheumatic and kindred disorders, and in that other class of disease for which the salicyl group is indicated, and where I have found it as reliable as is quinine in malaria. I also use it in neuralgia as a nerve sedative and in those catarrhal conditions so symptomatic of the so-called uric acid or gouty diathesis. I believe this product to be one of the most valuable compounds ever created by man."

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Locomotor Ataxia and Paralysis in the Light of the Newer Syphilis Research.—Lesser (Berl. klin. Wochenschr) states that Wassermann's syphilis reaction is positive in paralysis in 100 per cent. of the cases and in ataxia locomotor in 50 per cent. of the cases examined. Both diseases must be looked upon as the result of syphilis, but in none of them is the real process a syphilitic one. It is the result of nerve degeneration, caused by meningitis syphilitica, which may still be present or not. The meningitis luetica may be compared with the media infiltration in aneurysm of the aorta. This explains why antiluetic treatment does not benefit the disease. Healthy persons, who have suffered from syphilis before, show the reaction in 50 per cent of paralysis. It is possible, according to Lesser's experience, to make the reaction disappear by specific treatment. Healthy persons showing the reaction should therefore undergo antisyphilitic treatment for a considerable time. This is the prophylaxis for paralysis and ataxia locomotica.

The Treatment of Purulent Non Tuberculous Disease of the Renal Pelvis.—(Munch, med. Wochensch) says that while certain forms of acute and chronic pyelitis can occasionally be cured by medical and dietetic treatment, local and surgical measures are of chief importance. In acute febrile pyelitis catheterization of the ureter is indicated both for the removal of retained inflammatory products as well as for irrigation of the renal pelvis. Chronic pyelitis should be treated by irrigation of the renal pelvis or instillations. The best results are obtained in infections due to the bacterium coli and gonococcus, while the local treatment is of less value in staphylococcus, streptococcus or proteus infections. In cases in which tuberculosis is suspected and in pyelonephritis irrigation of the renal pelvis is contraindicated, and this also applies to infective hydronephrosis. If repeated evacuation of accumulated secretions in the renal pelvis with the uretral catheter and the use of local medication has proved ineffective, and the febrile condition or other severe general phenomena persist, nephrotomy should be undertaken. This operation should also be considered as a primary procedure in cases of acute and chronic pyelitis in which uretral catheterization cannot be carried out, as well as in infective hydronephrosis and pyonephrosis, or it may be replaced by nephrectomy in the latter two conditions. Fistula of the renal pelvis, or severe injuries of the renal substance after nephrotomy, requires secondary nephrectomy. He further stated that in acute febrile cases of infection of the upper urinary passages an involvement of the parenchyma of the kidney may be assumed if catheterization of the ureter fails to show any retention of secretions in the renal pelvis. Repeated rigors in the course of a febrile pyelonephritis point to the presence of abscesses in the cortical portion. Acute and subacute pyelonephritis demand nephrotomy, if persistent and general septic symptoms point to abscess formation in the parenchyma. In bilateral disease nephrotomy may be required on both sides. The unilateral hematogenous form of cortical abscess, such as occurs after furunculosis or angina, as well as its sequelæ (paranephritis), must be treated by early resort to nephrotomy and incision of the abscess. Nephrectomy is indicated in chronic supurative processes in the kidney accompanied by sclerosis of the ureter (empyema of the renal pelvis, purulent nephrolithiasis), provided the functional capacity of the other kidney is satisfactory.

Incomplete Ligature of Arteries in the Treatment of Aneurism.—Doyen (Munch. Med. Wochensch.) says the operation suggested consists in encircling the artery above the aneurismal sac with a silken ligature, which is tightened only sufficiently that the pulsations below are barely perceptible. In cases of aneurism of the abdominal arteries, subclavian or carotid, nothing further is done, but in aneurisms of the main artery of a limb incomplete ligature is followed by longitudinal resection of the sac and restoration of the normal lumen by a doucle longitudinal suture. He reported a case of aneurism of the popliteal artery in which normal conditions were thus restored over a section of 11 cm. Owing to subsequent obliteration of the popliteal vein with considerable edema of the limb, he resorted to the following procedure: The entire external jugular vein was removed from a sheep and placed in an isotonic saline solution. The tibioperoneal veins of the patient were then exposed and one of them found permeable. An incision was next made in the popliteal region and the proximal end of the politeal vein found in Hunter's canal. At each end of the extirpated vein of the sheep three sutures were inserted; the exposed tibioperenеal vein was then transversely divided, invaginated into the sheep's vein, and the latter sutured to the external coat of the tibioperoneal. A long curved forceps was inserted into the femoral wound and made to perforate the tissues of the politeal space down to the tibial wound, the sheep's vein drawn through, and its proximal end sutured into a longitudinal incision in the popliteal vein. The implanted segment had a length of 25 cm. The wound was drained and complete restoration of the circulation took place.

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Chronic Appendicitis in Children.

Comby thinks that this condition is much more common than is generally supposed, and that while usually the diagnosis is not made unless an acute exacerbation calls special attention to the appendix, careful observation on the part of the physician may lead to earlier recognition of the trouble, and consequently an earlier cure. He reports having observed over 120 cases of chronic appendicitis, which form the basis of this article.

The etiology is often vague. The disease may occur in well nourished children, without previous intestinal disease, and in these some general cause—heredity, family predisposition, etc., may play a part. More often it is seen in children subject to adenoid disturbances, pharyngeal catarrh, enlarged tonsils, adenitis, etc. Most commonly one gets a history of preceding intestinal disorders, especially follicular enteritis, which may be supposed to have left their mark upon the appendix. The infectious diseases in general, and grippe especially, seem often to be important. Carelessness in diet, and over-eating are also etiologic factors. The disease is rare in early infancy, becoming more frequent from the fourth year on.

The symptomatology described by Comby is very indefinite, embracing practically all the symptoms commonly ascribed to chronic intestinal indigestion in children. It is interesting to note that he believes nearly all cases of "cyclic vomiting" to be instances of chronic appendicitis, and refers to a series of over one hundred cases under his own observation. Muco-membranous entero-colitis, also, he considers to be a frequent result of appendix disease.

Under differential diagnosis he discusses entero-colitis, cyclic vomiting, which he has already declared to be nearly always due to appendicitis, hepatic and renal colic and floating kidney, all of which are rare in children; salpingitis; unusual manifestations of coxalgia, and some other conditions of similar symptomatology. The deciding point is the abdominal pain with localized tenderness at McBurney's point, which he believes can nearly always be made out by careful examination.

Medical treatment he thinks should not be continued after the diagnosis is made, as the interval operation is safe, and will almost certainly save the patient much illness.—Arch. f. Kinderheilkunde, Vol. 50, p. 138.

Alsberg, in the same journal, gives details of seventeen cases of appendicitis in children. He doubts any such connection with angina as is often assumed, but does note an apparent relation to influenza. He is also doubtful regarding any special relation between diet and appendicitis. He emphasizes, however, the importance of infections enteritis, especially folicular colitis, in the etiology.

He thinks that too little attention is given to possible appendicitis in childhood; that vomiting and abdominal pain are too often slighted, and that laxatives are given too often and too carelessly in such conditions.

He calls attention to the difficulty in diagnosis in young children, mentioning especially, besides other conditions discussed by Comby, right sided pneumonia and cystitis. He thinks the flexed position of the right leg is often a help in diagnosis.

Like Comby, Alsberg places little reliance on palliative treatment, and believes in operation in almost all cases.—Arch f. Kinderheilkunde.

Do We Want To Be Happy.

One of the familiar torments we impose upon ourselves concerning the inevitable is our vexation at growing old. Yet we love life, we want experience, and, alas, what other way is there to prolong and to obtain these, except to watch the years go by? "If youth only knew. If old age only could," runs a French saying, pronounced with melancholy. Youth does know, and old age if they will not want to change roles with can, fretfulness and impatience, living in the future when it is too soon and in the past when it is too late; demolishing thus the better chance of joy.

The word "happiness" (good hap)—in German "gluck" (luck), in French "bonheur" (good fortune)—by its origin would tend to thrust the responsibility of our destiny in this regard upon the shoulders of Fate. But it is not until we take things in our own hands and decide we do want to be happy that the magnetic current begins to turn our way. Otherwise we plod blindly along, attracting to ourselves a certain kind of misfortune, and declaring each time the wheel revolves in our disfavor: "That's just my luck". Then, later as we look back at our lives, we find that we can sum up the minor circumstances in the one trite saying: "I've had a great deal of trouble, and most of it never happened."

—Mrs. John Van Vorst in December Lippincott's

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In severe cases of diphtheria E. Schreiber uses the antitoxin intravenously. Even very young children could tolerate as much as 2,000 units without any after-effects. In two almost desperate cases 6,000 and 10,000 units were injected with absolute success.

Among 20 cases treated in this way, only one died on the thirteenth day of heart failure. The temperature always falls more rapidly and the general condition improves more quickly than after the usual subcutaneous administration. The small percentage of carbolic acid present need not cause alarm. The local process does not, however, clear up more rapidly. Where a vein cannot be exposed, the injection should be made into the gluteal region, as absorption is here more rapid than from the subcutaneous tissue.—Muench. med. Woch.

New Treatment of Syphilis.

As soon as the primary sore has appeared it is impossible to abort syphilis, but, according to the observation of H. Hallopeau, the course of the disease may be much shortened by the following treatment: 0.1 Gm. atoxyl, dissolved in 2 Cc. of boiling water, are injected daily into the immediate vicinity of the primary sore during the entire period of incubation; that is, about six weeks. In persons over fifty, with disturbance of vision, the atoxyl derivative, hektin, is to be preferred, though it causes more severe local reaction. The sore will rapidly heal, the swelling of the inguinal glands will be slight or absent, and a roseola or other eruption will not appear. At the same time, the patient receives daily for two weeks 0.02 Gm. of mereury benzoate by injection, with first 1 Gm., then 2 Gm. of potassium iodide internally per day. An ointment containing 30 per cent. of atoxyl is applied locally to the sore. The pain of the injections of the benzoate can be diminished by dissolving 0.02 Gm. of the salt in 4 Cc. of a 10-percent. sugar solution. In some cases that were treated in this manner the Wasserman reaction never became positive.—Gaz. de Hopit.

Treatment of Lupus Erythematosus.

Lupus erythematosus appears to Sir Malcolm A. Morris, of London, Eng., to be essentially a chronic inflammation of the skin, local in origin, and depending on a condition of the circulation which makes the integument prone to vaso-motor disturbance. This may cause a predisposition to toxic infection, but neither the fact of such infection nor its nature has been positively demonstrated. Each case must be dealt with according to its peculiarities.

The treatment should be constitutional and local. Under the former head must be included careful regulation of the diet, so that the intestine may not be loaded with materials that may form a favorable soil for infection. Anything, like coffee and tea, which causes flushing of the face, is contraindicated. Quinine is often useful,

Locally, in the hyperemic stage, he prescribed cooling lotions and ointments of subacetate of lead. Ichthyol in the form of a lotion or an ointment he also found to be among the most useful of local remedies. In chronic cases the constant application of a strong solution of ichthyol is the best remedy, but iodine liniment is also valuable. In severe conditions linear scarification or light touch's of the thermo-cautery he found often to give good results. In subacute cases he has sometimes used high-frequency currents and in chronic cases the Finsen light and the X rays with success. These agents are particularly useful in the later stages when there is thickening of the integument. Radium may be applied to limited areas for ihe seme purpose.—The London Medical Lancet,

Itching and its Treatment.

Itching, or pruritus, is a prominent symptom of many skin affections. It may also occur without any skin eruption, or such skin lesions as are present may be the result of scratching. Very often it is on account of the pruritus that a patient seeks advice, rather than because of the inconvenience of any eruption, or for other symptoms. But it is the duiy of the medical man, not merely to attempt to treat this symptom, but to find out the cause of it, and, if possible, to remove it.

Having made the diagnosis of scabies or of pediculosis, the treatment is aimed at the cause of the disease, and the well-known application for these complaints generally quickly remove this troublesome symptom. In scabies, however, a good deal of itching may be complained of even after disease is cured. This is generally speedily removed by a mild tar lotion. The treatment of eczema need not be entered into here. In lichen planus and urticaria the same applications are useful as in pruritus from other causes. In pruritus dependent upon the disturbance of the digestive functions the bowels must be regulated and careful attention given to the diet. Alcohol, coffee, and any particular kind of food which has been found to disagree must be avoided, Appropriare treatment for diabetes and albuminuria will generally relieve the itching

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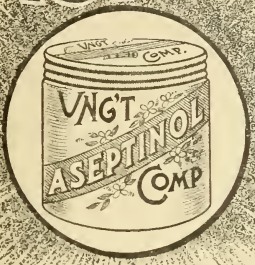

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which occurs in these conditions. Cardiac cases will relief from small doses of digitalis.

There are certain empirical remedies which have been found useful in obstinate cases, or as temporary measures in all cases. These are quinine in large doses; antipyrine in doses of grn. v, gradually increased; pilocarpine, grn. 1-16 to 1-10, by the mouth, when the itching is most troublesome—the good effect of this remedy is often very striking. Cannabis indica is recommended in the pruritus of old people, in doses of 5 to 20 min., well diluted, three times a day, after food.

In all cases local applications are useful, and the list of such applications is a long one. Among the most useful are lotions containing liquor picis carbonis, 3j ad 3x; acidum carbolicum, ℥xl ad 3x; sanitas, 3ss ad 3x, Alkaline lotions are: bicarbonate of soda or borax, 3ij to 3x, with or without a few drops of dilute hydrocyanic acid; lotions containing a powder in suspension, oxide of zinc, calamine, talc. Or a powder may be suspended in the tar or alkaline lotion. Sometimes cold sponging with vinegar and water, or with alcohol and ether, followed by powdering with starch powder, gives relief. Lotions may be conveniently applied by means of a spray. A lotion of perchloride of mercury, grn. v ad x ad 3x, is cleanly and odorless. It is useful to bear in mind several prescriptions, for often one relieves where another fails.—The Hopital, London.

The Therapeutic Value of Calcium Creosote.

The Lancet remarks that although the therapeutic value of creosote is generally recognized, its extremely acrid taste has militated against its wide employment. Various attempts have been made to eliminate this objectionable feature. Thus it has been incorporated with oil and enclosed in gelatin capsules, aqueous and alcoholic mixtures have been made, and various compounds of creosote—e.g., creosote carbonate—have been introduced, but with the exception of the carbonate no preparation of creosote appears to have satisfactorily solved the problem of administering the drug in adequate doses without causing nausea, vomiting, and digestive disturbances. It is of interest, therefore, to refer to a paper by Dr. Louis Kolipinski in a recent number of the Monthly Cyclopœdia and Medical Bulletin (June 1909), wherein he recommends a solution of calcium creosote as possessing in a perfect degree all of the medicinal virtues of creosote without any of its objectionable properties. Advantage is taken of the marked chemical affinity that exists between creosote and calcium hydroxide, which yield on trituration a purplish-red substance, with a slight odor of creosote and a sharp taste. It is soluble in water, giving a permanent solution when preserved out of contact with air. It is conveniently prepared by mixing about five pounds of calcium hydroxide with one pound of creosote and slowly percolating with water so as to produce a solution having a specific gravity of about 1.011. When prepared in this way one pound of creosote yields about twenty pints of calcium creosote solution, each fluid drachm of which contains about three drops of creosote. The solution has a smart peppery taste, but it does not exert an irritating or caustic action on the tegumentary membranes. A suitable dose for an infant of one year is from three to five drops in water every two or three hours. For a child of six to eight years doses of one teaspoonful may be given, and for an adult from one to two dessert spoonfuls in a glass of water. As much as six fluid ounces of the solution had been administered during the day without protest or any unpleasant symptoms. It is not necessary, however, to give more than a dessert spoonful in cases of acute disease. In rare instances Dr. Kolipinski has observed as intolerance of too large a dose, particularly in frail children, but a reduction of the dose to from fifteen to thirty minims stopped the vomiting. In a few cases an eruption of the skin occurred on the extremities, trunk, and face, accompanied by some irritation, but the rash disappears within a few days, without suspending the treatment. Dr. Kolipinski recommends the use of solution of calcium creosote in a variety of conditions, such as pneumonia, in which he declares it slows the respiration and pulse, facilitates and increases the cough, and renders unnecessary the use of sedatives, or hypnotics, and in enteric fever, in which it acts as an efficient non-poisonous antiseptic to the mouth cavity, stomach, and intestine. Dr. Kolipinski suggests that it may be found useful in various systemic affections and local pathological conditions, and that it deserves a trial as a topical application in dermatological practice.—The Lancet, London.

Why Use Morphia?

The practice of using morphia for simple pains and neuralgias of different varieties cannot be too strongly condemned. As these preparations afford speedy relief, it is taken for granted without any further consideration, that they are precisely what the condition requires, and patients fly to their use on the slightest provocation without consulting their physicians at all. Such

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persons, long before they recognize the fact, learn to rely unconsciously upon morphia for relief, without realizing that they thus slowly drift under its pernicious influence, and in a short time absolutely require the drug independently of the original condition which induced its use.

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Tobacco Poisoning in an Infant.

J. Lemaire reported to the society de Pediatre a child of one year of age who ate a cigarette containing 2 oz. gm. of tobacco, or probably about 0.002 gm. of nicotine. After sleeping for an hour he awoke, cried, and vomited. There was diarrhœa, pallor, and cold sweating. Two hours later he was prostrate and drowsy, very pale, with cold extremities, with cardiac or respiratory disturbances. Tobacco was vomited and passed in the stools. Tea, brandy, and warmth were administered, and at midnight the patient went to sleep. In the morning he awoke quite well.—British Journal of Children's Diseases.

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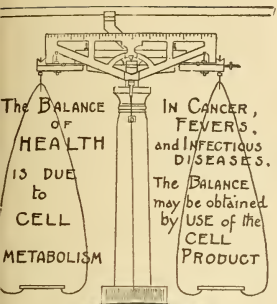
Croom read a paper on his experience with scopolamine-morphine narcosis during labor, at a recent meeting of the Edinburgh Obstetrical Society. He gave the results of its action on 63 cases in private and in hospital. He had begun with doses of 1-400 grn. of scopolamine, and 1-6 grn. of mor-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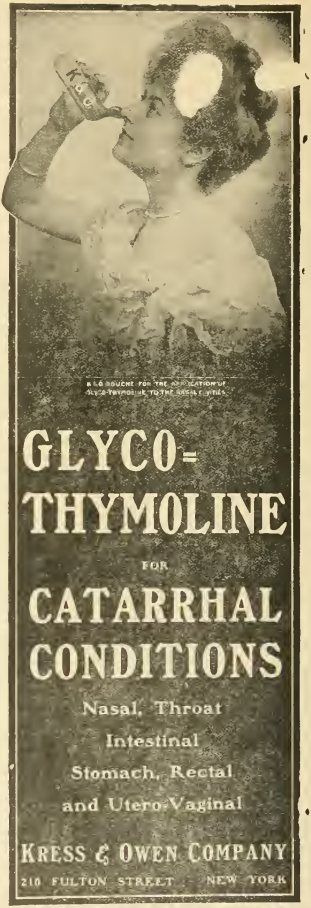

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phine, but these had little effect and were unsatisfactory, So also with double the dose of scopolamine. He believed the best dose was 1-100 grn. of scopalamine and 1-6 grn. of morphine. He usually administered it toward the end of the first stage of labor, when the pains were coming regularly every few minutes. Occasionally a second dose of scopolamine of 1-200 grn. was necessary, but he found it advisable not to repeat the morphine. With these doses the pain of the uterine contractions was markedly diminished and in some cases abolished altogether, and the patient slept soundly in the intervals between the pains and after the completion of labor. Further, the memory of the pains was in most cases strikingly blurred, and many of the patients awoke with no recollection whatever of their labors. He had found no ill effects from the drugs upon the mother except a little tendency to postpartum hemorrhage, but occasionally the children were born sleepy and required to be revived. In no case was the child's condition serious and none were stillborn. He believed that the treatment was most suited for nervous primiparæ, and particularly in private practice. He emphasized the necessity of using the drug in a freshly prepared form.

Dr. Haultain had used 1-200 grn. of scopolamine with 1-6 grn. of morphine during the first stage, when patients were often too ready to cry out for relief. Its effect lasted about from five to seven hours, and it had the advantage that during the second stage, if the pains were very severe, then a very small quantity of chloroform was required to relieve them. On several occasions he found the effects pass off, and that when the second stage came on the patient exaggerated the suffering. In several cases the condition of the child gave very great anxiety when the dose mentioned above had been given, and he found it difficult to resuscitate the infant. If the child was born within two hours no results were evident, or after five hours when the effects had passed off, but it was between these times that he had met untoward results. He considered the drug of the very greatest value in helping suffering women.

Elsie M. Inglis had experience of its use in 43 cases, giving it in doses of 1-100 grn. of scopolamine and ¼ grn. of morphine, repeated if necessary in three hours. It was useful in cases with a very prolonged first stage, these mostly ended with chloroform administration in the second stage, and she had also found that much less was then required. She had noticed rapid dilatation of the os under its influence.

J. Haig Ferguson had found it inconstant in its action, or this might have been due to idiosyncrasy of the patient. He used 1-100 grn. of scopolamine and 1-6 grn. of morphine, repeating the same dose of scopolamine if necessary without the morphine. As the patient was not so conscious of the pains then, these cases required more careful attendance of the medical man. One patient had expressed herself to the effect that she had some feeling of pain, but in a far-away manner, as if the pains were in the other side of the room. He had found as much thirst from large as from smaller doses. It was useful in cardiac cases and where one had to hasten labor.—The London Lancet.

Treatment of Malaria.

Ter-Grigoriantz treats malaria as follows: During the acute stage the temperature is taken every two hours; if it has dropped one degree from its highest point, two doses of 0.3 Gm. of quinine hydrochloride are given within two hours. On the following day another dose is given four and two hours before the attack, and a third one at night before retiring. This applies to the quotidian form; in the tertian type the morning doses of the second day are omitted. If the attacks cannot be checked in this way, the patient receives an injection of Laveran's solution (quinine hydrochloride, 3 Gm.; antipyrine, 2 Gm.; distilled water, 6 Cc.) daily at 9 and 1 o'clock. No more attacks will occur, yet the disease may remain dormant for years. In such cases injections of arsenic are indicated. The prominent symptoms of malaria larvata are a large, hard spleen, atony of the stomach with hyperacidity and constipation, headaches with various other nervous symptoms, and anemia, The best drug to remove these symptoms, according to the author, is atoxyl. It is used as 5 per cent. solution in 0.5 per cent. carbolic acid (¼ syringeful the first day, ½ the second, ¾ the third, and a hole syringeful the fourth day. After 15 injections a 10 per cent. solution is used in the same amounts until the patient can tolerate a whole syringeful every day or every other day. The cure is complete after 25 to 40 injections, when the spleen will have returned to normal size. No after-effects were seen except slight rises of temperature with malaria and, rarely, edema of the face.—Therap. Monatsh,

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tor of the degree of toxemia from which the patien t suffers. Indicanuria is the term used to denote the presence, in the urine, of indoxyl-potassium sulphate, a decomposition product of indol, a substance generated in the intestine as a result of the action of putrefactive bacteria upon proteid or albuminous material. It is of distinct diagnostic value as an index of the extent of intestinal putrefaction and of the degree of the constitutional absorption of toxic material thus generated. When any appreciable percentage of indican is detected in the urine it is always wise to cut down the proteid elements of the diet, (meat, eggs, etc.). In addition to dietetic restrictions, a liquid combination exercising cholagogue, antiseptic and digestive properties, such as Chologestin, is extremely useful. This preparation, by virtue of its contained sodium salt of the natural bile acid, (sodium glycocholate) is a true physiologic cholagogue, which materially increases the formation and secretion of the biliary fluid. The natural sodium salicylate (from oil of wintergreen) supplements the cholagogic activity of the bile salt and also serves to liquefy the bile. At the same time. it acts as an intestinal antiseptic. The pancreatin (which, in Chologestin, is deprived of its inert, mucinous material) aids in the digestion of the albuminous foods and the sodium bicarbonate adds the necessary alkalinity to the combination. with the physiologic stimulation of the heptic cells and the consequent increased activity of the liver, the existing intestinal putrefacting is overcome and the absorption of toxic products prevented. The manufacturers of Chologestin (F. H. Strong Company, 58 Warren St., New York) will be pleased to send formula samples and literature to any physicians requesting same, together with a handsome Indian Color Scale, with approved tests and interpretation. The test for Indican is simple and readily applied.

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In Glyco-Thymoline I have found a preparation upon which the body medical has placed the seal of approval and one calculated to meet the requirements of the medical practician's varied needs. The preparation is too well known by reason of its world wide (I use this term advisedly) use, to necessitate or warrant a description or analysis here, nor do I propose to speak for others beside myself. It is, however, a pleasure to state that for the past eight years I have used this preparation to the exclusion of all others in my work at the clinic and in private practice whenever 1 wanted a mild cleansing antiseptic detergent remedy. During the period of time I have a large number of cases on record which 1 could detail would space permit, but I must desist and limit myself to a few which I will offer to show why I confine myself to this single remedy and leave it to the reader to determine the value of my judgment.

Mr. G. C. A., age 37, traveling salesman, consulted me in reference to his "catarrh," which had given him much discomfort for some time. Complained of frequent attacks of headache, occasional sore throat and incidentally mentioned the fact that his sense of smell was failing him. I examined his nose carefully and found him in the first stage of beginning atrophic rhinitis. The tissues looked dry and drawn, there were some crusts which were very adherent and had some odor. When detached, which was with difficulty, the mucous membrane showed a tendency to bleed. I spent some time in rendering the affected parts perfectly clean, using a solution of Glyco-Thymoline and water equal parts, warmed to proper temperature. He was further instructed in the use of the K. & O. Nasal Douche which he continued to use daily. I gave him general instructions as to his habits, diet, way of living, and he left me. Saw him several months later while passing through the city and he came up to the office and I looked him over again. To my great surprise the atrophy had been unmistakably arrested in its progress, his throat was normal, he not being obliged to hawk so incessantly any more and his sense of smell had returned completely. Here is a case which was entirely restored by the conscientious and diligent use of Glyco-Thymoline,

Fred. H. K., aged 26, vocalist, came to me complaining of his throat which troubled him considerably in his work. Stated that he had received treatment from three or four physicians without receiving any benefit. Said previous treatment consisted in cauterizing the tonsils; throat no better for all this. Upon examination found nose normal and pharynx in fair condition, and in the face of all I had learned from previous treatment was puzzled for a few moments, Completing my examination with the small mirror passed up behind the soft palate, I noticed a deep ulcer high up in the naso-pharnyx, completely hidden from view by the velum palati. Everything at once became clear to me. Time and again I succeeded in getting results when others failed because I took the trouble to inspect the naso-pharynx, a cavity very much neglected. There was only one thing to do and one way to do it. Glyco-Thymoline was ordered to be used with equal parts of warm water as a douche for the nose. Pa-

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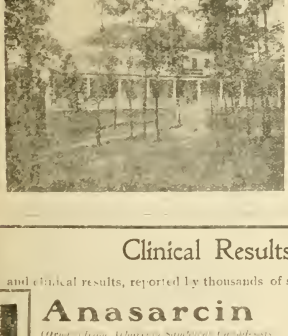

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tient readily learned the trick of closing up the cavity and allowing the medicament to remain in contact with the diseased parts for quite a while. In two weeks this patient was well of a trouble which threatened to cause him to abandon his vocal work, and which had caused him considerable expense, pain, and loss of time. I number him among my most grateful patients.—Oscar F. Baerens, M. D., Ph.G., Prof. of Diseases of the Ear, Nose and Throat, St. Louis College of Physicians and Surgeons, St. Louis, Mo.

Philadelphia Number.

The American Journal of Surgery will produce in December a *Philadelphia* issue of their journal, the subject matter of which will be composed entirely of contributions from among the leading men of that city. Among the subjects to appear and their contributors are as follows:

"A Consideration of the Diagnosis and Treatment of Retro-Displacement of the Uterus," by E. E. Montgomery, M. D., Professor of Gynecology, Jefferson Medical College.

"Polypoid Growth of the Rectum and Report of a Recent Case," by Lewis Adler, Jr., M. D., Prof. of Diseases of the Rectum, Philadelphia Polyclinic.

"Tumors of the Urethra in Women," by Barton Cooke Hirst, M. D.. Prof. of Obstetrics, University of Pennsylvania.

"The Control of Hemorrhage During Pregnancy," by Edward P. Davis, M. D., Prof. of Obstetrics, Jefferson Medical College.

"Cyclodialysis," by Walter L. Pyle, A. M., M. D., Ophthalmologist to the Mount Sinai Hospital, Ass't Surgeon of Willis Eye Hospital, etc.

"Roentgen Treatment of Malignant Diseases," by Charles Lester Leonard, A. M., M. D., ex-President of the American Roentgen Ray Society.

"The Conservation of the Middle Turbinated Body," by William A. Hitschler, M. D.

"The Diagnosis and Treatment of Ectopic Pregnancy," by F. Brooke Bland, M. D.

The following well known surgeons will also contribute, and their titles will be announced at a later date.

Ernest La Place, A. B., A. M., M. D., Prof. of Surgery, Medical Chirurgical College.

Prof. William Campbell Posey, Prof. of Ophthalmology, Philadelphia Polyclinic.

John G. Clarke, M. D., Prof. of Gynecology, University of Pennsylvania.

H. M. Christian, M. D., Clinical Professor of Genito-Urinary Diseases, Medical Chirurgical College.

John A. McGlinn, A. M,, M. D., and others.

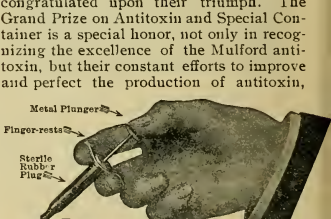
Something You Should Keep in Mind.

Here it is! In fully nine-tenths of the cases you are called upon to treat (and especially is this true in acute diseases) there,s something wrong with the alimentary tract which demands correction. The first indication is for a quickly-acting, nongriping and effective "clean out". Once the irritating and poisonous fecal waste is removed and the alimentary canal maintained in healthy condition (the patient gegins to improve and in the absence of crippling diseases or severe specific infection, goes rapidly on to recovery. For this "clean out" there is no remedy more effective than Abbott's Saline Laxative—or Salithia when there is rheumatism or the uric-acid diathesis. If the bowel is badly clogged commence with a few doses of Calomel, Podphyllin and Bilein Comp., Abbott. Doctor, try this plan. It "works" and will please you.

The H. K. Mulford Company Obtains the Grand Prizes and Gold Medal at the Alaska-Yukon-Pacific Exposition.

The Director of Exhibits of the Alaska-Yukon-Pacific Exposition announces that the Jury of Awards has awarded the H. K. Mulford Company, of Philadelphia, the Grand Prize for Antitoxin and Special Syringe Container, the Grand Prizes on Tuberculins and Serial Dilutions of same, and the Gold Medal for Biological Products —the highest award granted.

The H. K. Mulford Company are to be congratulated upon their triumph. The Grand Prize on Antitoxin and Special Container is a special honor, not only in recognizing the excellence of the Mulford antitoxin, but their constant efforts to improve and perfect the production of antitoxin,



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The jury, in awarding the grand prizes on the tuberculins of graduated potency, bacterins (bacterial vaccines) and vaccines, recognized the H. C. Mulford Company as the leading house engaged in the manufacture of these products.

The jury also recognized the importance of bacterins and of tuberculins of graduated potency as therapeutic agents by grouping them with vaccines employed for the prevention of smallpox. Antitoxins, bacterins and vaccines are three epoch-making products, representing the highest scientific advancement for the prevention and treatment of disease.

The method for graduating the dosage of tuberculin by serial dilutions has made tuberculin therapy comparatively safe in the hands of the general practitioner. When it is considered that the initial dose of this potent agent is 1-10,000 of a milligram—a portion almost inconceivably small—and that the increase in doses must be graded so carefully that it requires from six months to a year before the dose of one milligram can be given, the advantage is apparent of having a graded system of dosage so arranged that each dose can be accurately determined by increasing by two drops the dose of the serial dilution.

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It is thoroughly aseptic, rendering contamination impossible.

The metal plunger screws into the rubber plug, adjusting pressure and making action positive.

The metal finger-rest with rubber guard at top of syringe prevents any possibility of the syringe breaking or injuring the operator's hand.

The needle is attached with flexible rubber, permitting motion of patient without danger of tearing the skin.

The special adjustable rubber has great advantage over other packing, as it does not shred, absorb serum, or become pulpy. This syringe is simple and accurate, having no parts to get out of order.

The H. K. Mulford Company publish Working Bulletins on Biological Products. Copies will be mailed upon repuest to the Philadelphia office.

The Diagnosis of Permanent Mental Deficiency in Infancy and Childhood.

Lapage says the medical man and nowadays especially the school medical officer, has frequently to decide whether an infant or a child has possession of its full mental powers, and in many cases it is by no means easy to give a definite opinion.

Briefly, he defines mental deficiency as meaning a permanent want of sense. There are three degrees: (a) Idiocy, or very great mental deficiency; (b) Imbecility, or considerable and marked mental deficiency; (c) Feeble-mindedness, or lesser, but nevertheless definite and permanent mental deficiency.

The well defined types most frequently met are: (1) Microcephalic, (2) Mongolian (3) Cretinoid, (4) Epileptic, (5) Hydrocephalic, (6) Cerebral Diplegic.

Besides, there are many cases which do not conform to any well defined type, though there is no doubt about their mental deficiency. Such cases form a large proportion of the mental defectives seen at a large children's hospital and at schools for such children.

Lapage says the following points should be noted when examining a child for mental deficiency: (1) The family history, (2) the health of the mother during pregnancy, (3) the personal history of the child, including troubies at birth, (4) the presence or absence of physical stigmata, (5) the height and width, (6) the speech, (7) the sight, (8) the hearing, (9) the ability to sit up, to walk and to control the spincters, and the age at which these powers developed, (10) the age at which the child began to walk, (11) the memory, attention, will, and temperament, (12) the standard in which the child is, the power of reading, writing, ciphering, and of performing manual tasks.

In conclusion the writer says that the diagnosis of the slighter forms of mental deficiency, i. e., of less degree than imbecility, or idiocy, is not as a rule made during the earlier years of life, unless the child conforms to one or the other of the well recognized types. Inability to sit up, lateness in learning to walk and talk may excite the alarm of the parents. As the child gets older, the diagnosis becomes increasingly easy. Still, up to the age of 5, 6 and 7 years, there are quite a number of cases in which the diagnosis is difficult. The points that help are the development of the power of walking and of talking, the amount of control over the sphincter, and the general mental capacity, as judged from the actions, the speech and language, the expression, the power of memory, attention, imitation, and will, the presence of perverted instincts and habits, such as unusual wantonness and violence, or an insatiable appetite, as the eating of clay or dirt.—The London Practitioner.

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The manufacturers of Listerine are proud of Listerine—because it has proved one of the most successful formulæ of modern pharmacy.

This measure of success has been largely due to the happy thought of securing a two-fold antiseptic effect in the one preparation, *i. e.*, the antiseptic effect of the ozoniferous oils and ethers, and that of the mild, non-irritating boric acid radical of Listerine.

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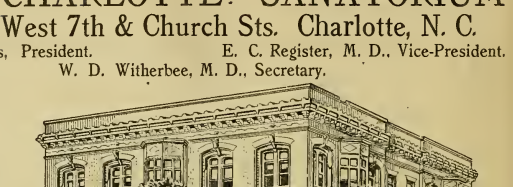

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The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at l elbourne, and others reported before in the medica literaturei show that every physician should see that his patent gets exactly what he prescribed. No "just as good" allowed.

Of all the many hypnotics at the command of the medical profession there is none that gives as uniform satisfaction under all conditions as Bromidia, As has been previously stated, the sleep produced is of a true physiological character. It is dreamless; and the patient awakes refreshed and vigorous. In proper dosage, Bromidia is perfectly safe and does not depress the heart. A teaspoonful should be given in water and, if necessary, repeated hourly until four doses have been administered. It is needless to state that. in order that, in order that maxium affect may be obtained from the initial dose; the patient should be placed under conditions favorable to the induction of sleel.